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MARITIME ADMINISTRATION
IN INDONESIA

By

Batara Mangarimpun Dharma Uli Manullang

WORLD MARITIME UNIVERSITY
MALMO - SWEDEN.

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MARITIME ADMINISTRATION IN INDONESIA

By :
BATARA MANGARIMPUN DHARMA ULI MANULLANG
INDONESIA

A paper submitted to the Faculty of the World Maritime University in partial fulfillment of the requirements for the award of a

MASTER OF SCIENCE DEGREE
IN
GENERAL MARITIME ADMINISTRATION

The contents of this paper reflect my personal views and are not necessarily endorsed by the University

Signature :

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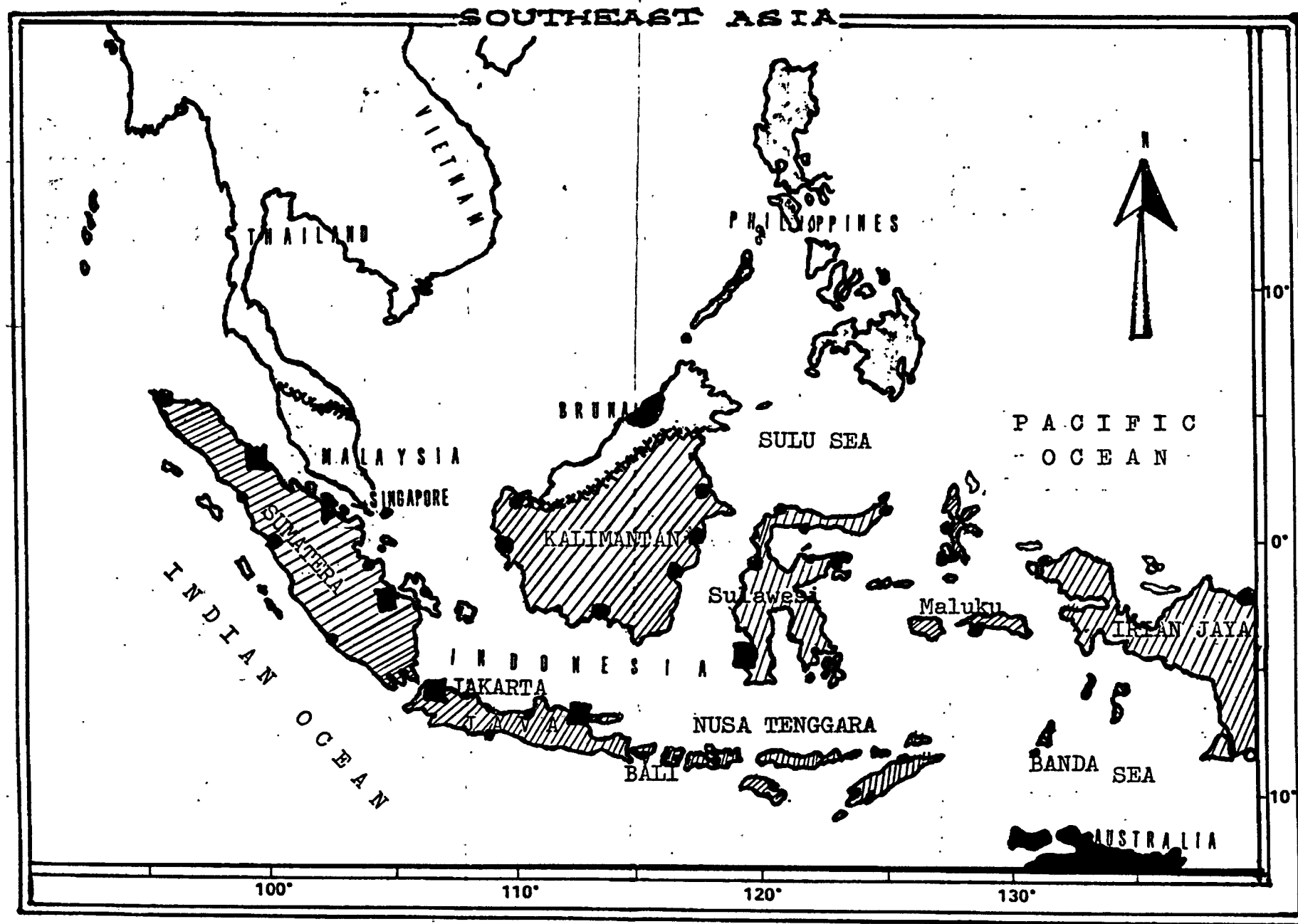


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Malmo, October 1987

* Batara Mangarimpun Dharma Uli Manullang

CHAPTER I

INTRODUCTION

I.1.GEOGRAPHICAL SITUATION AND LOCATION

Indonesia extends over part of the world's largest archipelago and is situated in the equatorial area between the two continents of Asia and Australia.

Along its western and southern costs it abuts upon the Indian Ocean; to the north it faces the straits of Malacca and the South China Sea, and on the remote northern shore of Irian Jaya (West New Guinea) it has a direct frontage on the Pacific Ocean.

So, the nation's location across important trade routes has long influenced its political and economic development.

Furthermore, Indonesia is the world's largest maritime nation covering :

- Sea and water areas : 3.64 million square kilometers
- Land area : 1.56 million square kilometers
- Length of coast line: 33,017 nautical miles.

In total, the Country comprises 13,600 islands in the vast sea areas extending approximately 5,000 kilometers from East to West approximately 2,000 kilometers from north to south.

Indonesia is a maritime country comprising six main islands in order of size : Sumatra, Java, Bali, a major part of Kalimantan, Sulawesi and Irian Jaya and the western part of New Guinea. In addition, there are two

large groups of islands : The Nusatenggara group and the small scattered islands of the Moluccas (Maluku) group.

I.2. POPULATION

The population in Indonesia was in 1980 147,490 thousand, according to a survey result carried out by the national census, i.e., the annual growth rate from 1961 to 1971 showed 2.10%, and an increase of 2.32 percent from 1971 to 1981.

As clearly shown in Annex I-2-1 and Annex I-2-2, the distribution of population is concentrated in Jawa and Sumatra; in 1980 Jawa had 91,269 thousand people accounting for approximately 62% of the total population, while Sumatra had 28,016 thousand people, about 19% of the population.

With regard to population density per square kilometer, Jawa has 690, followed by 96 in Nusatenggara and then by 59 in Sumatra : Jawa has an overwhelming figure as compared to other areas.

In the fourth five year development plan (REPELITA) started in 1984, the annual growth of population is predicted as 2% or less at the end of REPELITA IV. This rate is considered to be reasonable from the view point of the present situation as well.

On the basis of the result of the 1980 population census, i.e., 147,490 thousand, and the annual growth rate of 2%, future prediction is made as shown in Annex I-2-3, a forecast of population up to 2000.

I.3. BACKGROUND AND LIMITATION OF STUDY

The maritime transportation has been and still remains one of the important factors of the economic growth of maritime nations. Some of the best industrialized countries in the world today have reached such stage of development enhanced by the development of their maritime sector.

As aforementioned, Indonesia consists of 13,700 islands, which are linked by sea transport. The archipelago forms a natural barrier between the Indian and Pacific Ocean, making the straits between the islands strategically and commercially important.

So, from this point, the importance of developing a maritime sector should be considered particularly in order to develop a Maritime Administration as a part of maritime development and all at once to support the program of national development in Indonesia.

In addition, Indonesia has claimed territorial waters, nearly 3,166,163 square kilometers, which took the greater part of Indonesia area.

Therefore, the implementation of the Wawasan Nusantara concept as maritime dimension is very important, because the concept is embodied in the phrase used to connote the archipelago concept or principle, Wawasan Nusantara, which implies that the seas and the straits must be utilized to bridge the physical separations between the islands, regions and manifold ethnic groups and also aside from forging a sense of National unity, the concept is of prime security concern to Indonesia. 1)

In this connection, the maritime infrastructure and structure has been holding an important role in the Indonesia economy, including both domestic trade and international trade.

Regarding the role and the meaning of maritime transport in the society, by which it can be observed from several aspects such as : sociopolitical, defence, legal, technical and economical which can be explained as follows :

1. Maritime transport is one of the main objectives in order to realize and develop the unity of a nation.

2. Maritime transport is the mobility tools of defence, which must be available, not only for the routine requirement of the defence transport elements, but also more importantly as mobility tools which can be mobilized in emergency situations.

3. Realizing high mobility of the legal and public apparatus through the smoothness of maritime transport will facilitate some efforts of legal maintenance.

Some cases of violation of laws can quickly be solved, if the movements and mobilities to the people who execute and control the legal provisions can be guaranteed.

On the contrary, regulations and provisions for operation and possession of maritime transport facilities have been required.

4. Maritime transport, which can also be seen from a technical aspect of development and operation of maritime transport.

Planning, design preparation and making maritime transport equipment which have already been developing continuously as expertise field and industry.

The level of ability to plan, for designs, infrastructures, maritime transport and equipment will determine the size and the safety level of the maritime transport operation concerned.

5. Looking at it from an economic transport point of view, which can give the impact in micro and macro economics, maritime transport has been embodied in infrastructure in order to support the execution of national development.

In micro economics there are two sides of interest, viz :

a. Maritime transport companies in which maritime transport can be seen as efforts to produce maritime transport services and sell to the users in order to get profit yielding.

b. From the maritime transport users point of view, who have already seen maritime transport as one of the links which show the supply flow of raw materials and the flow distribution of final goods which can be distributed to the market.

In order to smoothly maintain the flow of those two sides, maritime transport services must be available and the cost proportional with the total cost of production.

Therefore maritime transport activities should be parallel with the activities of production, storage, marketing and other activities which maritime transport have already embodied apart from the links of raw materials supply and distribution of final products as a whole. Besides the aforementioned, there were also some factors which should be taken into considerations, namely :

1. Define the basic problems in many developing maritime countries as regards matters pertaining to the Maritime Administration, viz 2) :

a. Non-involvement in the evolution of international standards.

b. Out-dated Maritime (merchant shipping) legislation

- (both primary and subsidiary).
- c. Inadequate Administrative Infra-Structure.
 - d. Shortage of maritime personnel.
 - e. Lack of training facilities > and .

2. Elaborate upon and provide suggestions, proposals and guidelines on the activities to be attended to overcome the aforesaid problems and to lead to appropriate maritime development.

In this paper, it is impossible to describe and discuss maritime administration as a whole from every point of view. Therefore in this project, the author would like to make a limitation of study which will be focused and discussed with particular attention and importance to the organization and functions of Maritime Administration in Indonesia in general which is organized by the Directorate General of Sea Communication under the Ministry of Communication but not included to describe Port operations and their detailed activities.

The organization and functions of the Maritime Administration is undertaken by the Directorate General of Sea Communication in which the Directorate General of Sea Communication is a part, under the Ministry of Communication.

I.4.OBJECTIVE

The objective of this paper is to analyse the present situation of the Maritime Administration in Indonesia which is part of the National Development Plan as a whole.

Through the knowledge concerning maritime activities parallels with maritime development are expected to be

substantial in order to enable it to carry out efficiently the essential functions of a Maritime Administration with a coordinated maritime programme.

I.5. RESEARCH METHOD

In order to get some information and data, besides the lectures which have been given by professors, the author has made some research by two ways of research methods which are supporting the analysis and discussion of this subject in this paper regarding Maritime Administration in Indonesia, viz :

a. Library research :

In this research method which was done by collecting some important related information and data from the library of the World Maritime University such as : text books, reports, magazines, literature, and others etc. which is very important and useful relating to this paper.

b. Field research :

This research method, was done in my country (Indonesia) during the winter break at which time, the author made questionnaires and gave them to officers in the Ministry concerned and to The Directorate General of Sea Communication.

Besides that, some information was obtained during field trips and on-the-job training in some countries, which are very important and useful in order to support the analyses and discussion of this project and to further support the development of the Maritime Administration in Indonesia as a whole in the future.

I.6. STAGES OF CONTENT

In accordance with the discussion of this project chapter by chapter, which describes and analyses how Maritime Administration capabilities can be developed in Indonesia and suggests some approaches for its development.

This project is divided into five chapters which can be explained in the following , viz :

- Chapter I : deals with the introduction in order to describe the geographical situation and location, population, background and limitation of study, objective, research method and stages of content.
- Chapter II : deals with Maritime Administration in some maritime countries such as Norway and the Netherlands.
- Chapter III : briefly deals with the present organisational structure of the Maritime Administration in Indonesia in general, including the function of the main office, regional office and port.
- Chapter IV : deals with the main functional tasks of the Maritime Administration such as :
 - Merchant fleet development
 - Registration of ships; rules and procedure
 - Nautical inspection and ship classification
 - Manpower development in the maritime sector
 - Pertaining to prevention of marine pol-

lution

- Maritime search and rescue development
- Development of navigational aids and facilities.

- Chapter V : Conclusions/summary and suggestions.

FOOTNOTES TO CHAPTER I :

1).George Kent and Mark J. Valencia, East-West Environ-
ment and Policy Institute, Marine Policy in South

East Asia, page 44.

2).Professor P.S.Vanchiswar, Establishment/Administra-

tion of maritime affairs in Developing Countries,

Volume I, 1984, page 13.

CHAPTER II

Maritime Administration in Some Maritime Countries

II.1. Norwegian Maritime Administration

The organization of the Norwegian Maritime Administration is very extensive and rather complicated in the sense that work is spread between various authorities.

The general responsibility for maritime affairs is placed under the Ministry of Trade and Shipping.

The most important task of this Ministry is to look after the interests of the shipping industry on a national and international basis.

II.1.1. The Ministry of Trade and Shipping

The major part of the legislation, on which the maritime administration of the Ministry of Trade and Shipping bases its activity, has been developed in the course of this country. The most important task of this Ministry as mentioned above means that the Ministry is engaged in maintaining and, if possible, improving the access to the market for Norwegian shipping services and also in attending the interests of the persons who are employed in the shipping trade.

The work in the field of responsibility of the Ministry of Trade and Shipping is organized in such a way that there is a department which is responsible for maritime matters. This department has 5 divisions, and it is headed by a Director General, an assisting, or senior Deputy Director General and a Deputy Director General.

The 5 divisions have had the following main tasks, among other things, as follows :

The first Division :

Licencing import and export of ships, licencing shipping company finance from abroad , licencing Norwegian companies to invest in shipping companies abroad and to enter ships in other registries, licencing foreign investment in Norwegian shipping companies.

Annual national budget assessment of the shipping industry and the oil drilling industry. Maritime transport contingency planning administrative issues.

The second Division :

Maritime transport policy as discussed in international organizations, including OECD, UNCTAD and relations to the EEC.

The UN Convention on the Code of Conduct for Liner Conferences, general shipping policy relations with OECD countries, general questions regarding protectionism in and flag of convenience.

The third Division :

The affairs of the Maritime Directorate, the Directorate for Seamen and the Norwegian Government Seamen's service relations with IMO. International conventions and other instruments of IMO, relations with ILO concerning maritime transport, Norwegian maritime legislation. The social conditions of seafarers and their families, conditions of work onboard ship, general questions regarding maritime safety.

The fourth Division :

General economic assessments of maritime transport and

related activities. The economic and competitive strength of the Norwegian shipping industry. Prospects of the shipping markets long term programme assessment of the shipping industry and the oil drilling industry.

The fifth Division :

Access to the shipping markets of developing countries and state trading countries, shipping policy relations with the USA bilateral shipping agreements, protectionistic legislation and similar restrictions in other countries, commercial cooperation and other projects to develop the shipping industry of developing countries.

So, this Ministry has large, subordinated, specialized Directorates which carry out the greater part of the work. As aforementioned, these Directorates come under one of the divisions in the shipping department namely the third division which supervises the Directorates with regard to administrative and maritime safety matters.

These are sub-ordinate institutions of the Ministry of Trade and Shipping :

- 1.The Maritime Directorate
- 2.The Directorate for Seamen
- 3.The Norwegian Government Seamen's Service.

ad.1.The Maritime Directorate

The Maritime Directorate and its external organization, the ship control, are authorized to exercise the administration of measures to maintain and improve maritime safety standards. It also exercises functions delegated to it by other ministries.

The Directorate is organized in four divisions :

- Legal/Administrative division ;
- Technical division (in charge of hull, machinery and offshore activities) ;
- Operation division (in charge of equipment, manning, qualifications and other operational matters) ;
- Ship control division (in charge of survey and inspection).

The functions of this directorate can be summarized as follows :

- Approval of new buildings, conversions and repairs of ships, mobile platforms and other mobile shore units ;
- Initial survey of ships, platforms and other mobile offshore units;
- Annual, intermediate and periodical surveys ;
- Issue of certificates ;
- Registration of ships ;
- Tonnage measurement ;
- Approval of equipment ;
- Control of qualifications and manning ;
- Control of working environment and occupational health ;
- Pollution prevention ;
- Accident prevention ;
- Investigations of accidents and violation of regulations ;
- Participation in international activities related to safety ;
- Implementation of international conventions and agreements ;
- Development of complementary regulations ;
- Evaluation of new concepts and determinations of

- safety standards ;
- Initiating and participation in research ;

ad.2.The Directorate for Seamen

This Directorate is a separate unit, subordinate to the Ministry of Trade and Shipping. However, the Directorate also offers its services to other ministries and public and private institutions. The Ministry of Trade and Shipping has authorized the Directorate to make the decisions which within its field of activity/pursuant to acts or regulations, are vested in the Ministry.

The Directorate for Seamen is primarily a service institution intended to look after the interests of the seamen and of the shipping industry.

The main tasks of the Directorate for Seamen are as follows :

- General questions in connection with the administration of the Seamen's Act ;
- Articles of agreement and their content ;
- Provisions for the protection of young seamen ;
- Medical examination for seamen, sick and injured, deaths at sea ;
- The obligations of the state in connection with seamen's service conditions as regulated by acts or agreements ;
- Protection and environmental work on board ship ;
- Travelling arrangements for seamen and their families;
- Searching for missing seafarers, commission to certain foreign law and service of units, etc. ;
- Signing on and mustering in Norway and abroad ;
- Seamen's relations to military authorities ;
- Central registers for seamen and crew statistics.

And, lastly but not leastly, administration of arrangements concerning taxation of seamen, sickness benefits, collecting of social security dues, alimony etc.

ad.3.The Norwegian Government Seamen's Service

The aim of the Norwegian government seamen's service, which constitutes part of the Norwegian Maritime Administration, is to carry out welfare service for seafarers working on board Norwegian ships engaged in domestic and international trade.

Such service may also benefit seafarers from other countries. The service co-operates closely with the Norwegian Seamen's mission which is maintained by private means, the greater portion of which is subscribed by local missions in Norway. Considerable sums are also contributed by Norwegian residents abroad as well as by the seamen themselves.

The mission is not a part of the Maritime Administration.

As opposed to the two Directorates, which to a great extent exercise functions of control and regulation in relation to the shipping industry, the tasks of the seamen's service are of a service rendering kind only, and it should perhaps be regarded as more of a cultural institution. Through specialized departments, a number of special services which aim at presenting varied and balanced recreation offers, which as far as money and practical circumstances allow, provide seafarers with the same recreational and cultural benefits as the Norwegian society offers its citizens.

These activities include such things as : distribution of study material, a library service, distribution of newspapers and magazines, film rental, distribution of

tapes and video-tapes containing programmes produced by the Norwegian State Broadcasting Company, distribution of material for hobby activities and social activities and organization of sports for seamen.

These offers and services come to the seafarers partly direct from the special departments in Oslo and partly through secretaries at local welfare stations throughout the world..

II.1.2. Other Ministries in dealing with other matters

concerning Maritime Administration.

The situation today being that the administrative responsibilities in maritime affairs is divided between several ministries which exist to coordinate the activities and there is also a continuous co-operation between the authorities involved.

This cooperation takes place through both informal and more formal channels, such as committees, boards and councils..

These are other ministries which deal with other matters concerning Maritime Administration under the scope of those ministries.

These Ministries are :

- A. The Ministry of Environment is responsible for oil pollution protection.
- B. The Ministry of Justice is responsible for :
 - The maritime rescue service
 - Commercial law aspects of maritime legislation.
- C. The Ministry of Local Government and Labour is responsible for :
 - Safety in connection with oil exploitation of the Norwegian continental shelf.

- Labour force questions are also partly under the Ministry of Trade and Shipping.

D. The Ministry of Education is responsible for :

- Basic education including schools for elementary maritime education
- Giving competency for the lowest certificates for deck and engine departments.

E. The Ministry of Cultural and Scientific Affairs is responsible for the higher maritime education in all fields, economics and administration included.

F. The Ministry of Communications is responsible for general transport matters, including transport by sea in routes on the coast and by ferry.

G. The Ministry of Industry is responsible for shipbuilding yards come.

H. The Ministry of Fisheries is responsible for fishery matters, pilotage authorities, lighthouse services and harbour matters.

I. The Ministry of Finance is responsible for matters of taxation with regard to shipping and seafarers.

J. The consulates, which are very important in connection with merchant shipping, are of course administratively attached to the Ministry of Foreign Affairs.

The organization chart of Maritime Administration in Norway can be seen in Annex II-1-1/1 - II-1-1/6.

II.2. The Dutch Maritime Administration

In general, the activities of transport affairs are organized by the Ministry of Transport and Public Works. But, maritime safety affairs of the Dutch Maritime Administration is administered by the Directorate General of Shipping and Maritime Affairs which is subordinated to

the authority of the Ministry of Transport and Public Works.

The Dutch are a seafaring nation. The various government departments representing the Netherlands as a seafaring nation and port state are in the Directorate General of Shipping and Maritime Affairs.

The task of the Directorate General is to achieve unified administration in maritime matters.

It is carried out at an international level and entails promoting an interest of shipping under the Dutch flag.

The work of the Directorate General is divided between two Directorates, as follows :

1. Directorate shipping policy is concerned with vessels and crews.
2. Directorate maritime traffic is responsible for the regulation of the traffic in channels and harbours.

The chief Directorate of shipping policy has the responsibility for all vessels under the Dutch flag and for social and economic questions affecting their crews. It engages in international consultations aimed at improving the safety and the employment conditions of crews and is involved in crew training.

It also has the job of ensuring the safety of oceangoing and inland waterway vessels.

In Dutch ports measures are taken against vessels which fail to meet international requirements.

European countries have concluded an agreement to keep such vessels out of their ports.

The Secretariat of the Port State Control is located at the chief Directorate of shipping policy.

II.2.1. The Dutch Maritime Legislation

The Dutch Maritime law is very broad and is not the same as shipping law. It can be divided into private and public law.

The private law deals with the relation between the government and private parties.

The Dutch private law has been codified in the Code of Commerce. Here one can find the legislation on the carriage of goods by sea, charter-parties, marine insurance, etc.

The public law has been codified and there are many with regard to this subject, such as :

- Safety of ships
- Pollution by ships
- The manning of ships
- Measurements, etc.

II.2.2. International Maritime Organization Conventions ----- and their Dutch implementation. -----

International Maritime Organization (IMO) prepares the conventions. After that, states party to a convention should implement it as a law.

Usually a state may become party to a convention by :

- Its signature without reservation as ratification, acceptance or approval, or
- Its signature subject to ratify
- Accession.

It is a complicated and time-consuming procedure for a convention to be implemented by the Dutch Authority.

The Dutch constitution says that the Kingdom will not sign any convention without previous approval by Parliament. For a convention to be approved by Parliament and become a law the following procedure has to be followed :

- The adoption of the convention has to be advised by the council of state ;
- The convention has to be accepted by the two houses of Parliament.

In most European countries, the situation does not differ very much with regard to time and procedure for implementing conventions.

In some countries, the adoption of conventions is very easy in which a single statement is sufficient to signify that a state has become party to the convention and the rules of that convention will be applied.

II.2.3. Dutch Shipping and Maritime Affairs

In order to know about Dutch Shipping and Maritime Administration which can be seen by a short description concerning the many functions of each organization in the following :

A. Directorate General of Shipping and Maritime Affairs which takes care of :

- International and national aspects of ships registered in the Netherlands and of the position of the Netherlands as a port state and seafaring nation.
- Safe and smooth shipping traffic of the Directorate general.

B. The Directorate of Legal Affairs is responsible for :

- Legal affairs with regard to shipping in general
- Preparation of the national shipping legislations and the implementation of international agreements
- Giving legal support to the other directorates.

C. Staff Division is responsible for :

- Personnel affairs including employment, position and training, called Division of Personnel Affairs.

- Economic financial planning budgeting and control of financial management called Division of Financial Affairs
 - Housing and logistics called Division of Internal Affairs.
- D. The Directorate of Shipping and Maritime Policy which comprises the following divisions :
1. Division for economic and political affairs which is responsible for :
 - a. Economic affairs with regard to merchant ships registered in the Netherlands including financial aspects and investment subsidies
 - b. Maritime research and port policy.
 2. Division for social and educational affairs which is responsible for :
 - a. Social aspects of ships registered in the Netherlands.
 - b. Labour supply and demand as well as the certification of seamen and the quality of education.
 - c. The examination board for seamen's certificates of competency.
 3. Division for civil emergency planning which is responsible for a merchant marine defence strategy.
- E. The Directorate of Nautical and Technical Affairs which consists of some divisions :
1. Division for nautical and general affairs which takes care of :
 - a. Nautical and technical aspects of shipping including shipping inspection as well as the certification and registration of seamen.
 - b. Coordination and supervision of the four districts of shipping inspection.
 2. Division for inland waterways which is responsible

- for technical aspects of ships for inland waterways.
- 3.Division for IMO coordination which is responsible for the coordination of contributions to IMO from the Netherlands with regard to safety and marine pollution.
 - 4.Division for marine environment which takes care of marine pollution from ships.
 - 5.Division for ships' accidents which is responsible for the investigation of ship accidents.
 - 6.Division for technical affairs which takes care of technical affairs as well as the supervision of ship-building including control of ships design and related calculations.
 - 7.Division for ship measurement which is responsible for the measurement of seagoing and inland waterways ships.
- F.The Directorate for materials and logistics which is responsible for logistics, technical maintenance and the development of installations, marine signals and ships which belongs to the Directorate General.
- G.The Directorate of Pilotage and Maritime Traffic which is responsible for :
- Adequate and safe shipping traffic on waterways within the competency of the Directorate General-
 - Coordination activities of the four maritime districts.
- H.Maritime Districts which are responsible for :
- Pilotage and traffic guidance systems, public ports, buoys and beacons
 - Inspection of ships.

The organization chart of Maritime Administration in the Kingdom of Netherlands can be seen in Annex : II-2-1.

CHAPTER III

Present Organization Structure of Maritime

Administration in Indonesia

Missions of The Directorate General of Sea Communication

(DGSC) by Virtue of The State Guideliness (Garis-Garis

Besar Haluan Negara/GBHN)

As a consequence of her geographical constellation, Indonesia is to a large extent dependent on her Sea Communication system.

The exchange of products from one island to another is a vital lifeline for people welfare. National income derived from export earnings depends upon the proper functioning of the maritime sector, i.e. its management quality and availability of services needed. The contribution of Sea communication system to the regional development is apparent. In view of the Government efforts to strengthen the National resilience, the well functioning of the Maritime sector as a whole is a pre-requisite because it is the backbone to the confirmation of the welfare and security of the country. The Sea Communication system also has a very important role in the implementation of "Wawasan Nusantara". Wholeness principles underlying the National outlook "Wawasan Nusantara" and the economic entity concept derived from it call for a well balanced economic growth among regions in the country in which the Sea Communication is the precious one according to GBHN, the mission of Sea Communication is as follows: "Sea Communication should be enhanced so that widerly, safe, smooth, regular reasonable rate, efficient sea transportation service, especially for remote areas, will be available.

Domestic shipping should be enhanced and carried out so as to be able to support each other; therefore, not only will it encourage the growth of interinsular trade, but also support international shipping". To support the abovementioned missions the Government has provided laws and regulations concerning institutions as a grounds of the performance of the tasks related to the development of Maritime Administration which constitutes one of the most important factors to achieve the missions of Directorate General of Sea Communication.

According to the Ministerial Decree No.KM 164/OT-002/PHB.80 and their meanings concerning the organizational structure of the Sea Communication sector, the general allocations of management functions to the different level of organization units shall be as follows :

- Minister of Communication :
 - * Definition of overall policy for the communication sector. The organization chart of Ministry of Communication is shown in Annex III-1.
- Directorate General of Sea Communication (DGSC), which is under the Ministry of Communication :
 - * Definition of Sea Communication sector policy derived the overall objectives.
 - * Establishment of regulations
 - * Issue of licences
 - * Performance of plannings
 - * Monitoring of implementations.

The organization chart of Directorate General of Sea Communication is shown in Annex III-1-1/1 together with those of the relevant inter-organization as given in Annex III-1-1/2 to Annex III-1-1/10.

- Maritime District offices (referred as KANWIL) :
 - * Functioning as regional representative of Directorate General of Sea Communication
 - * Delivery of regulations etc. to operational units
 - * Direction, coordination and control of operational units.
- Operational units :
 - * Performance of control of obedience of regulations
 - * Execution of services
 - * Execution of measures.

The Directorate General of Sea Communication (DGSC), which is one of the three Directorates General within the Ministry of Communication, assumes the main role in performing described in Presidential Decree or Keputusan Presiden (KEPPRES) No.44/74 relative to the management of the Sea Communication (or maritime transport) sector in the country.

The Sea Communication sector encompasses all aspects of operations, technical implementation, general management as well as technical management in the fields of shipping, ports and dock and shipyards.

This chapter is primarily a description of the main functions of the Directorate General of Sea Communication head office in planning, coordination and control of sea communication activities.

As the agency responsible for the overall management of the sea communication sector, the Directorate General of Sea Communication head office has the following objectives as derived from the functions described in the Ministerial Decree or Keputusan Menteri (KM) No.164/OT-02/PHB-80 (which implements KEPPRES 44/74) :

a).Planning and coordination of the planning process bet-

ween all units in the Directorate General of Sea Communication head office, and the Nine Kanwilhublas throughout the country.

- b).Control and coordination of Sea Communication operational activities.
- c).Control and coordination of ports and harbours development projects and acquisition of properties.
- d).Interpretation of International Conventions and National laws and preparation/updating of Maritime and Port rules and regulations for the entire country.
- e).Enforcement of Maritime and Port rules and regulations.
- f).Effective and efficient performance of the Directorate General of Sea Communication head office functions related to personnel administration, finance, materials management, legal administrative work, maintaining good relations with the public and other general affairs.

The objectives described above serve mainly as a guideline for evaluating the performance of the Directorate General of Sea Communication head office in carrying out its management functions.

III.1.MAIN OFFICE

As shown in the chart of the present organization (Annex III-1-1/1) the Directorate General of Sea Communication head office consists of the following directorates :

- Directorate of Sea Traffic
- Directorate of Marine Safety
- Directorate of Ports and Dredging
- Directorate of Navigation
- Directorate of Maritime Services
- Directorate of Coast Guard and Sea Patrol.

The Secretariate to the Directorate General of Sea Communication, which assists and provides managerial support to the Directorate General, consists of the following divisions :

- Planning division
- Personnel division
- Finance division
- Material division
- Legal division
- General affairs division.

As discussed before, the key function in the Directorate General of Sea Communication head office consists of planning, coordination and control.

For this reason only the available descriptions of functions for Directorates, sub-directorates and sections (Division and sub-divisions in the secretariate) are used in this chapter. The functional-descriptions of each are summarized below :

III.1.1. Directorate of Sea Traffic

This Directorate is responsible for the granting of permits to shipping companies to engage in sea transportation in the domestic, inter-island and special liner operation, including international liner shipping.

1. Sub-Directorate of Data and Sea Transport Control

This sub-directorate collects and processes data on capacity and utilization of fleet and ports for the purpose of monitoring cargo and passenger flows. When required, recommendations are formulated to better utilize these capacities.

2. Sub-Directorate of Maritime Industries development

This sub-directorate prepares recommendations for the development of shipping companies and forwarding companies and regulates financing of fleet renewal. It regulates tariffs for sea transportation.

3. Sub-Directorate of Domestic Liners

This sub-directorate issues operating licenses and regulates regular inter-island shipping and foreign flag vessels in domestic operations. It ensures that all routes have sufficient shipping capacity and issues licenses for route deviations.

4. Sub-Directorate of International Liners

This sub-directorate regulates the development of Indonesian shipping lines in International shipping. It issues operating licenses to these companies, and issues permits to foreign and domestic flag vessels to enter Indonesian ports. It also regulates the use of foreign flag vessels by Indonesian shipping companies, and sets targets for the share of these companies in international shipping.

5. Sub-Directorate of Special Shipping

This sub-directorate issues operating licences to shipping companies engaged in the bulk trade, both international and inter-island, such as industrial shipping, tugboat/barge shipping.

6. Sub-Directorate of Local Shipping, Perahu (sailing boats), Terminal and Ports

This sub-directorate issues operating licences for local shipping, for the transportation of goods and passengers to and from small ports in the archipelago with ships smaller than 175 DWT. This includes the perahu fleet. It also regulates the transportation of goods and

passengers in ports without shore facilities.

III.1.2. Directorate of Marine Safety

This Directorate issues ships certificates in accordance with international conventions and national laws. It regulates registration, measurement of ships, transfer of title to ships and certificates of nationality. Finally, it is in charge of marine pollution prevention.

1. Sub-Directorate of Nautical, Technical and Radio Equipment

This Sub-Directorate is responsible for inspection of ships, such as: nautical inspection; technical inspection; radio equipment inspection, and issuance relevant certificates.

2. Sub-Directorate of Sea-worthiness

This sub-directorate inspects and regulates the seaworthiness of the ships, e.g. hull, engine, electrical installation, ship's stability, free board, and cargo handling gear.

3. Sub-directorate of ship measurement and registration

This sub-directorate is responsible for the measurement and the registration of ship. It controls transfer of the title of ships, nationality of ship and call sign.

4. Sub-directorate of Ports and Seamen

This sub-directorate is in charge of the enforcement of law and order in ports, and the handling and storage of dangerous cargoes in ports. It controls and regulates the certification of fleet personnel, their conditions of employment, and work permits for foreign fleet personnel.

on Indonesian vessels. It conducts investigations into accidents at sea and verifies the revenues of harbour - masters.

5.Sub-directorate of Sea-Pollution

This sub-directorate provides guidance for the prevention of pollution and the removal of floating obstacles at sea; pollution treatment;and records of cases of sea pollution.

III.1.3.Directorate of Ports and Dredging

This Directorate is responsible for establishing guidelines on ports building and equipment purchase; construction programs and operation of port services; pilotage regulations and maintenance of ports basin and access channel.

1.Sub-directorate of Port construction and Equipment

This sub-directorate develops and submits plans for port construction works and for the purchase of port equipment; port facilities; and analyses the effect of technological developments in ports and shipping.

2.Sub-directorate of Port services

This sub-directorate prepares regulations and guide - lines for port services; controls the quality of port services;level of tariffs for port services;and provides guidelines for the use of land and water areas in ports and controls the implementation of special wharfs.

3.Sub-directorate of Dredging

This sub-directorate plans the dredging program of access channels and port basins; prepares guidelines for dredging operations and prepares regulations related to

the standardization of dredging equipment.

4.Sub-directorate of pilot services

This sub-directorate prepares operational programs for pilot divisions in the port administration and issues regulations regarding pilot activities in ports.

5.Sub-directorate of manpower and warehousing

This sub-directorate prepares regulations and guide - lines related to the maintenance and repair of warehouses and it establishes tariffs for storage of cargo in warehouses; prepares guidelines for the use of port manpower;and regulates and controls the welfare and productivity of port manpower.

III.1.4.Directorate of Navigation

This Directorate is in charge of navigational safety;establishment of navigational aids;maintenance of ships;and for maritime health care.

1.Sub-Directorate of Navigational Aids

This sub-directorate is responsible for the placement, constructions and maintenance of navigational aids; warehouses and areas for storage of buoys, spare-parts, equipment, and materials for work-shops, beacon and lighthouses; manning and logistics and equipment for lighthouses.

2.Sub-directorate of Electronics and Communication

This sub-directorate prepares regulations for the control and use of electronic and other telecommunications equipment in the maritime sector and prepares regulations for maritime telecommunication procedures.

3.Sub-directorate of ships and craft

This sub-directorate also regulates the operation of the fleet of the Directorate of Navigation; recruitment of fleet personnel and purchase of equipment and materials for these ships and craft.

4.Sub-directorate Technical and Ship Repair

This sub-directorate is responsible for the repair and maintenance of ships and craft of the Directorate of Navigation. It is in-charge of workshops for small repairs and maintenance. It purchases tool and equipment for these workshops.

5.Sub-directorate of Maritime Manpower Health

This sub-directorate prepares regulations regarding the health requirements of personnel in lighthouses, coastal radio stations, hydrographic manpower, coastguard, dockyards, salvage and underwater works, and fleet personnel.

III.1.5.Directorate of Maritime Services

This Directorate is tasked for the development of ships technology and repair facilities; salvage and underwater works;and research maritime technology.

1.Sub-directorate of Shipping Technology

This sub-directorate prepares regulations regarding standardization of ship types, engines and equipment, and quality standards;ship design;ship maintenance.It collects and processes data on ships, machinery and equipment, ship costs and data on planning, construction and maintenance of ships.

2.Sub-directorate of Salvage and Underwater Works

This sub-directorate prepares guidelines for salvage; underwater works; offshore underwater construction; and diving and diver safety. It performs inspections of, and prepare recommendations and guidelines for, the above activities in their section. It also prepares permits for these activities.

3. Sub-directorate of Maritime Services Development

This sub-directorate prepares guidelines for training of, and provide information to, dock and shipyards, and companies operating in the field of salvage and underwater works.

4. Sub-directorate of Applied Technical Services

This sub-directorate prepares regulations for the development and geographical dispersal of ship repair yards. It performs researches in the quality of raw materials used in ship building and repair, and prepares recommendations on the materials to be used. It also performs research in the field of hydrodynamics of ships; and prepares regulation on underwater surveys, salvage and underwater works.

III.1.6. Directorate of Coastguard and Sea Patrol

This Directorate is responsible for coastguard/ sea patrol, ports security, search and rescue, interrogation and investigation.

1. Sub-Directorate of Security

This sub-directorate collects data related to violations of maritime laws and regulations. It investigates violations of maritime laws and regulations. It also investigates the use of firearms.

2.Sub-Directorate of Patrol, Search and Rescue (SAR)

This sub-directorate is in charge of sea patrol and search and rescue,including guidelines for the location of task forces.

3.Sub-Directorate of Port Security

This Sub-Directorate prepares regulations and guide - lines related to port security, fire prevention, and prevention of dumping of solid wastes in port waters.

4.Sub-Directorate of ship units

This Sub-Directorate prepares regulations and guide - lines to ensure that crafts to be used by the Directorate are in a state of readiness and that they are maintained as required.

III.1.7.Functional Description for each Division in the Secretariat

The Secretariat is divided into six divisions :

A.Planning Division

This division is in charge of planning and programming; systems and procedures; evaluation and reporting; and project design and preparation of feasibility studies.

B.Personnel division

This division performs personnel development;retirement and pension;and employment and classification.

C.Finance Division

This division is in charge of budget preparation; financial system;and performs treasury functions.

D.Materials Division

This division is responsible for materials planning; procurement and distribution; and maintains records of incoming materials, stocks and issuing of materials.

E. Legal Division

This division studies existing laws and regulations, and formulates recommendations on legal matters, including their revisions, issuance of rules and regulations. This division also studies national laws and regulations in relation to International Conventions and International Rulings for their harmonization.

F. General affairs division

This division takes care of administrative matters, travel expenses, protocol services, public relations, and house-keeping duties, personnel transportation, and office supplies.

III.2. Regional Office/KANWILHUBLAS

For the execution of the functions of the Directorate General of Sea Communication (DGSC) in the provinces, nine regional offices were established upon issuance of the Ministerial Decree or Keputusan Menteri (KM) No. 407/4/PHB-76. The country is divided into nine maritime districts, each with a Maritime District office or Kantor Wilayah Perhubungan Laut (KANWILHUBLA) organized in a similar manner as the DGSC. The locations of the KANWILHUBLA are as shown in Annex III-1-1/11.

As an extension of the DGSC, each KANWILHUBLA provides technical or administrative assistance to each port within its jurisdiction but it does not exercise direct control or supervision of these ports. As regional representative of the DGSC, the KANWILHUBLA's primary role is to facilitate the execution of the DGSC's functions

taking into consideration problems posed by geographical locations, and distances of ports from the seat of the national government.

KANWILHUBLAS shall be responsible for the implementation and follow up of DGSC activities on a regional basis. This includes detailed routine planning, licensing, monitoring, coordinating, balancing as well as directing of the operational units. So, the management and managerial support services of KANWILHUBLAS refer to planning, coordination and control functions being exercised by the nine KANWILHUBLAS (I-IX) as the designated regional offices are vertical agencies of the DGSC.

III.2.1.Objectives of KANWILHUBLAS

In its jurisdiction, each KANWILHUBLA has the following main objectives : enforcement of maritime and port laws and regulations; manpower planning and preparation of operational and development budgets; adherence to specified tariffs for shipping and port services and facilities;and ensuring execution of the KANWILHUBLA'S functions related to finance, materials management, legal administration, maintaining public relations and other general affairs.

III.2.2.Tasks of the KANWILHUBLAS

To achieve its objectives, the KANWILHUBLA performs the following tasks:(1) prepares and issues necessary directives and guidance to the four technical units, namely : offices of the Port Administrator, offices of the Harbour Master, navigation districts, and coast-guard and sea patrol units;(2) prepares schedules and monitors the training of manpower, routine (operational) and development budgets of each technical unit as well as

for the KANWILHUBLA itself;(3) reviews the manpower, operational and development budgets submitted by the technical units, consolidates or summarizes the KANWILHUBLA'S own budget and forwards to the DGSC;(4) conducts random field visits to observe or verify operations of the various technical operations units;(5) reviews periodic financial reports from the technical units and verifies in compliance with specified tariffs on shipping and use of ports and harbour facilities;(6) supervises and trains staff on effective and efficient performance in functions related to personnel administration, finance, materials management, legal administration, public relations and general affairs;and (7) renders necessary assistance to the designated field representatives of the Ministry of Communications.

III.2.3.ORGANIZATION OF THE REGIONAL OFFICE

In accordance with KM.No.407/4/PHB-76; each KANWILHUBLA is organized as shown in Annex III-1-1/9. The four technical units (Offices of the Port Administrator, offices of the Harbour Master, navigation districts and coastguard and sea patrol units) are also shown in the Head of the KANWILHUBLA and not directly in the different division heads.

Head of KANWILHUBLA. -Provides overall direction for the

management of the KANWILHUBLA and control over the operational/technical units; systems and procedures; implementation of maritime and port rules and regulations.

Head of Administrative Division. -Directs functions

related to personnel administration, finance, materials and general affairs; development of policies and procedures in accordance with KANWILHUBLA'S functions;

administration and policies for maintaining cordial relations with the public; and prepares statistics and required reports.

Head of Personnel Subdivision. -Supervises staff in his

unit particularly those involved in personnel administration and manpower development within the Maritime District office.

Head of Finance Subdivision. -Supervises staff in his

unit particularly those involved in financial matters within the Maritime District Office.

Head of Materials Subdivision.- Supervises staff in his

unit particularly those involved in procurement, custody and issuance of materials within the Maritime District Office.

Head of Legal Administration and Public Relations Subdi-

vision. -Supervises staff in his unit particularly those

involved in legal administration and public relations, collection of statistical data and formulation of policies for the Maritime District Office.

Head of General Affairs Subdivision. -Supervises staff

in his unit particularly those involved in general administration, preparation of statistics and other general affairs within the Maritime District Office.

Head of Sea Traffic and Transport Division. -Directs and

coordinates the activities in his division; evaluates reports to establish implementation of rules and regulations related to : operation of oceangoing, interisland and special shipping liners; operation of

local and perahu shipping to meet sea transport needs;
local and perahu shipping routes; and operation of terminal
and wharf transport.

Head of Domestic and Foreign shipping Section.

-Supervises staff in his unit particularly those involved
in gathering and analysis of reports related to the
operation of interisland and oceangoing shipping lines.

Head of Special Shipping and Tugboat Section.

-Supervises staff in his unit particularly those involved
in gathering and analysis of reports pertaining to special
shipping and tugboat operations.

Head of Local Shipping and Terminal Operations Section.

-Supervises staff in his unit particularly those involved
in collection and analysis of reports related to local and
perahu shipping operations, terminal and wharf transport,
cargo handling and the verification of terminal and wharf
transport tariffs.

Head of Shipping and Maritime Services Division.

-Assigns and supervises staff and evaluates reports to
establish implementation of rules and regulations related
to: (1) seaworthiness of ships and other safety aspects; (2)
repair and maintenance of ships; (3) port and maritime
safety, handling of dangerous cargoes, verification of
seamen's passbooks as well as the employment of foreign
fleet personnel on Indonesian Ships; (4) operations of
shipbuilding and dockyards; and (5) salvage work, tugboat
and sea diving activities, and underwater works.

Head of Maritime Safety section. -Supervises staff in

his section particularly those involved in collecting and

analyzing reports related to seaworthiness of ships and other safety aspects.

Head of Harbourmaster Operations Section. -Supervises

staff in his unit particularly those involved in collecting and analyzing reports related to port and maritime safety, handling of dangerous cargoes, verification of seamen's passbooks and employment of foreign fleet personnel on Indonesian ships.

Head of Ship Measurement and Registration Section.

-Supervises staff in his unit particularly those involved in collecting and analyzing reports related to measurement of ships, registration and identification of nationality of incoming ships, and the issuance of ship's certificates.

Head of ship and shipyard Technical Section. -Supervises

staff in his unit particularly those involved in the collection and analysis of reports related to salvage work, tugboat and sea diving activities, and underwater works.

Head of Ports and Dredging Division. -Assigns and

supervises staff and evaluates reports to establish implementation of rules and regulations related to:(1)

Rendering of port services;(2) Construction and development of ports;(3) Implementation of programs for dredging of port basins and access channels;(4) Pilot services for ships;and (5) Port cargo handling and port manpower.

Head of Port and Manpower Section. -Supervises staff in

his unit particularly those involved in collecting and analyzing reports related to the rendering of ports and

dredging services and the associated manpower.

Head of Technical and Dredging Section. -Supervises

staff in his unit particularly those involved in
collecting and analyzing reports related to the
implementation of programs for the construction and
development of ports and dredging of port basins and
access channels.

Head of Pilot services section. -Supervises staff in his

unit particularly those involved in the collecting and
analysis of reports related to the rendering of pilot
services for ships.

Head of Navigational Aids Division. -Assigns and

supervises staff and evaluates reports to establish
implementation of rules and regulations related to:(1)
Placement, construction and maintenance of lighthouses,
buoys and other navigational aids;(2) Operation and
maintenance of ship's radio and telecommunications
equipment;(3) Operations of vessels being used as
navigational aids;and (4) Repair, maintenance and
seaworthiness of vessels used for navigational aids.

Head of lighthouses and buoys Section. -Supervises staff

in his unit particularly those involved in collecting and
analyzing reports related to the placement, construction
and maintenance of lighthouses, buoys and other
navigational aids.

Head of Ship's Radio and Electronics Section.

-Supervises staff in his unit particularly those involved
in collecting and analyzing reports related to the
operation and maintenance of ships' radio and

telecommunications equipment.

Head of Ships' readiness section. -Supervises the staff

in his unit, particularly those involved in collecting and
analyzing reports pertaining to the repair and maintenance
and seaworthiness of vessels of the navigational aids
divisions.

Head of Coastguard and Sea Patrol Division. -Assigns and

supervises staff and evaluates reports to establish
implementation of rules and regulations related to:(1)
Maintaining law and order in ports and harbours;(2)
Operations of Sea Patrol and Search and Rescue (SAR);(3)
Operations and maintenance of patrol boats;and (4)
collection of information and investigation of violations
of law and order within the Maritime District.

Head of Inspection Section. -Supervises staff in his

unit particularly those involved in collecting and
analyzing reports pertaining to violations of security and
order within the Maritime District.

Head of Sea Patrol and SAR Operations Section.

-Supervises the staff in his unit particularly those
involved in the collection and analysis of reports
pertaining to sea patrol and SAR operations as well as the
operation and maintenance of sea patrol boats.

Head of Ports and Harbour Security Section. -Supervises

the staff in his unit particularly those involved in the
collection and analysis of reports pertaining to the
maintenance of law and order in ports and harbours.

III.3.Port

The organizational structure of port principally derives from the Directorate of Ports and Dredging and covers those fields which a port authority normally carries out.

III.3.1. Port management

A public port administration should be as autonomous as possible and financially self sufficient, except for major capital investments. It can be considered the "Landlord" of the port, which owns all infrastructures and superstructures of the port. In this function, it provides the necessary length of quays with associated depth alongside, storage areas, buildings, port security and all other related matters; and maintenance of port facilities. According to commercial principles, basic governmental control should be such that it enables the port administration to manage efficiently and to follow a steady, consistent program of port development without deviating from the general economic policies of the government and without neglecting broad national interests for the benefit of financial or commercial interests of the port systems.

A total of 91 ports in Indonesia are administered by Port Administrations, sub-divided in classes of ports, according to size :

Class 1	4 ports
Class 2	12 ports
Class 3	17 ports
Class 4	22 ports
Class 5	36 ports
Total	91 ports.

The Port Administration in Indonesia is responsible to the Directorate of Ports and Dredging in the Directorate General of Sea Communications, and is the executive arm of the Directorate. The Port Administration is responsible for the management and development of the port, including private piers, and provision of the required environment for efficient and safe transfer of goods and passengers between ship and land transport. The Port Administration is self-sufficient in terms of income and outlays, and transfers excess cash to the Maritime District office or directly to the local representative of the Ministry of Finance. Income consists of port dues, fees, charges and rentals for the facilities and equipment they own. It provides access channels, port basins of adequate depth, quays, aprons, open and covered storage facilities, access roads and port security. It provides pilot services and a limited stock of cargo handling equipment to operators. This equipment is rented to terminal operators, who take care of cargo-handling, if they do not have sufficient equipment.

The Port Administration licences Indonesian shipping companies to handle cargo over designated berths. For this purpose, Indonesian shipping companies have a separate section for terminal operations, in their organization. The terminal operators are also licensed to use designated storage facilities. Storage charges are paid by the cargo-owner to the Port Administration, which credits 20 percent of these charges to the terminal operator for their management of the storage.

Use of channels, basins and quays is charged directly to the vessel, and is paid through the shipping agency of the vessel. In addition, the Port Administration provides auxiliary facilities, where required, such as fuel and water for ships, personnel for mooring and unmooring, and

tugboat assistance. It also supervises local branch of YUKA in its daily operation, monitor cargo-handling performance, and provides firefighting equipment and manpower.

In eight ports (Belawan, Palembang, Tanjung Priok, Cirebon, Tanjung Perak, Banjarmasin, Balikpapan, Ambon) the Port Administration has its own terminal operating company for conventional cargo-handling. At these facilities ports handle ships on charter for (mostly government-owned) full cargoes. The purpose of this involvement in terminal operations is to provide a basis for comparison in monitoring performance of other designated terminal operators. In Tanjung Priok the Port Administration also operates a container terminal.

III.3.2.Objective of the Port

The objectives are:(1) provide port facilities (including access channel and basins) commensurate with the nature of the ship and cargo traffic handled in the port;(2) Timely expansion and upgrading of port facilities to meet future growth and changing shipping technology;(3) take all measures necessary to provide a port environment adequate to ensure safety of ships, passengers and cargo within the port limits;and (4) monitor all auxiliary activities to enable efficient processing of ships,passengers and cargo.

Tasks of the Port Administration.

The present main tasks are:(1) maintainance of existing facilities in every respect at a level where they are fully usable for their intended function;(2) modification, upgrading and expansion of port facilities well ahead of their need to allow for construction periods;(3) checking and report on deficiencies in water depth in access

channels and basins;(4) supervision of construction works in the port;(5) provision of qualified pilots and pilot craft;(6) provision of tugboats of sufficient capacity, manned with skilled personnel;(7) monitoring ship and cargo movements, and productivity in cargo handling to provide a data base for present and future performance;(8) maintainance of records of current outlays and expenditures, and submit annual budgets.

III.3.3.Development of Port Organization

The Government established 4 Perum Ports which shall carry out the management and related plannings for the four gateway ports : Tanjung Priok, Belawan, Surabaya and Ujung Pandang, including the approximately 92 related port administrations. A fundamental charge affecting the Port Administration is contained in Government Regulations 14, 15, 16 and 17, published in 1983, formulating the incorporation of four port Perums (Perusahaan Umum Pelabuhan). Each of these PERUMS will manage a (geographical) group of ports :

- PERUM I, located in Medan, managing 21 ports in the provinces of Aceh, North and West Sumatra and Riau.
- PERUM II, located in Jakarta, managing 17 ports in the provinces of Jambi, South Sumatra, Bengkulu, Lampung, DKI, West Java and West Kalimantan.
- PERUM III, located in Surabaya, managing 36 ports in the provinces of central and east Java, south-east Kalimantan, Bali, west and east Nusatenggara and east Timor.
- PERUM IV, located in Ujung Pandang, managing 17 ports in the provinces of south, south-east, central and north Sulawesi, Maluku and Irian Jaya.

In line with the Government Regulations abovementioned, the Ministerial Decree (Kepmen) No.194/OT.001/PHB-83 has

been issued and states the following principles :

- (1).The ports are owned, regulated and operated by the Government.
- (2).The Minister of Communications is carrying out this function and transfers the planning, developing, operating and controlling to the Port Perums of which he is the superior.
- (3).The Minister of Communications appoints the President Director of each Port Perum.
- (4).The Port Perum shall act as autonomous entities being responsible for the following functions :
 - Planning and development of port facilities.
 - Commercialization of facilities and services.
 - Establishment of their own port tariffs (to be approved by the minister).
 - Financing of own investment.

The nature of a PERUM in general is a public corporation, with all the capital owned by the Government. Its Board of Directors is directly responsible to the Minister.

The PERUM has no permission to transfer assets to other enterprises and should be financially self-supporting.

The tariffs and charges which are levied by the PERUM are regulated by the Minister. The Government provides a subsidy to the PERUM if the operation of the PERUM results in a loss. The Board of the PERUM is appointed by the President, and PERUM personnel are appointed by the management of the PERUM, subject to ministerial approval. All PERUM personnel have the status of civil servants. In the case of the Perum Pelabuhan, Regulations 14, 15, 16 and 17 state that the capital of the PERUM will consist of the Government assets in the ports.

The main stipulations in these regulations are :

- A.The PERUM manages its own general and special purpose

funds, which must be deposited in a state bank account.

B. The sources of financing of investments can be :

1. Internally generated funds.
2. Government investment from the National Budget.
3. Domestic and foreign loans.
4. Issuing of bonds.
5. Other legally approved sources.

C. The PERUM shall submit an operational and investment budget three months prior to the beginning of the fiscal year (equal to calendar year). Budget supplements and adjustments may be submitted during the fiscal year.

All budgets and adjustments are submitted to the Minister of Communications for his approval, and the approval of the Minister of Finance.

D. The PERUM shall submit annual financial statements within 6 months after the end of the fiscal year to :

1. The Minister of Communications
2. The Minister of Finance
3. The Board of Audit.

E. The PERUM shall propose tariffs for its services to the Minister of Communications for his evaluation and approval.

F. The employees of the four PERUMs receive a salary and pension as determined by the personnel policy of the PERUMs.

The Chart of Districts and Main/Gateway Ports can be seen in Annex III-1-1/11..

CHAPTER IV

MAIN FUNCTIONAL TASK OF MARITIME ADMINISTRATION

IV.1.MERCHANT FLEET DEVELOPMENT

IV.1.1.GENERAL:

In accordance with the state policy outlines of the development of Sea Communications should be further improved in order to reach a wide, orderly, organized, safe, smooth, inexpensive and efficient sea transportation service, especially for the isolated areas. As aforesaid, under the geographical environment and conditions in Indonesia, maritime activities are vital necessities for the development of a national economy in Indonesia.

The results from the maritime sector development within the First Five Year Development Plan (REPELITA I), the Second Five Year Development Plan (REPELITA II), and the Third Five Year Development Plan (REPELITA III) materialized an increase of the infrastructure and facilities belonging to the respective maritime factors and provided better to the public as well as enabled the fulfilment towards demands on sea transportation and services. Within the REPELITA IV the development of the maritime sector shall be integratedly stepped up so that all relevant factors may be appropriately balanced within inter-insular and inter provincial transportation as well as overseas transportation. The development of the maritime sector within the Fourth Five Year Development Plan (REPELITA IV) constitutes the improvement and more substantial form of services to the extent of being more equalized and integrated so that they may become a solid support within the National Development. Inter-insular shipping

should be increased be increased and able to support each other to implement the inter-island trade growth and support the inter-ocean shipping. The national inter-ocean shipping should improve their activities and their ability of competition in transporting commercial cargo abroad. It is also necessary to implement firmer steps on the development and supervision toward shipping industries, especially shipping people.

IV.1.2. The objectives

The objective of the sub-sector is to provide safe and efficient transport of cargo at reasonable cost from port of origin to port of destination.

In the International trade the additional objective is to obtain a reasonable share of the traffic to and from Indonesia. Therefore, wider extension of maritime services is to be made available. The services should be better organized, smooth, smooth, efficient and well balanced among the various kinds of maritime related facilities/ infrastructure as well as the capability of rendering more reasonable services. In line with the aforesaid, management capabilities are also intensified to support well balanced services and improved efficiency and effectiveness in maritime sector management. Discipline is also being stepped up in the interest of safety of goods and passengers so that accidents in the transportation sector can be minimized.

It is self-evident that trade plays an important role in the Indonesia economy, and that the sea transportation occupies a key part in the expansion of trade for furtherance of economic growth, transportation of daily necessities, furtherance of the local development/immigration policy together with the fishery supplying the nation's protein source and also being one of the impor-

tant export items. So, interinsular shipping should be increased and able to support each other to implement the inter-island trade growth and support the inter ocean shipping.

IV.1.3.Tasks :

-
- a. In the international trade the shipping sector has to provide sufficient ships of appropriate type and size to carry the cargo moving in international traffic to and from Indonesia.
- b. In the inter-island trade, ships should be provided in such quantity, quality and size as to provide adequate capacity on all routes and in all shipping activities, without over-tonnaging.
- c. All ships must be manned by qualified personnel.
- d. Liner services should provide regular sailings at adequate frequency, maintaining advertised schedules.
- e. Every effort be made to ensure safe transport and damage-free transportation of cargo.

The above tasks are performed by shipping companies, which are partially state-owned, but largely privately owned. So far, Government Regulation No.2 of 1969 requires that domestic shipping is entirely carried out by the National flag carriers (cabotage) where as in international shipping fairshare principles are maintained. Permits are granted by the Indonesian Government to foreign flag carriers on specific conditions : The foreign flag needs to make use of an Indonesian operator for domestic trade and an Indonesian General Agent, who submits the tariffs, manifests and confers membership to the Minister of Communications for approval in foreign trade.

The development of the Sea Communication sector during the REPELITA IV will be more stressed on the improvement

of sea transportation services, locally as well as internationally.

It is forecasted that during REPELITA IV the development of local as well as international sea transportation service shall increase constantly 1).

To fulfill the development of sea transportation service need, inter alia, increments will be implemented in the ----- shipping armada.

The development of national fleet continuously implemented throughout REPELITA III, and the total volume of cargoes increased during the period are as given in Annex IV-1.

An estimate is made for the national fleet and volume of cargoes at the end of REPELITA as given in Annex IV-2.

✕ It should be borne in mind that before the Indonesian Government issued the new regulations concerning the existing vessels and the purchase of newly built vessels in 1984, a major part of the Indonesian fleet is predominantly worn out and /or obsolete. According to this policy, the existing vessels aged 25 years old or more must be scrapped, and the scrapping must be carried out in domestic shipyards. ✕ It is likely that the strict enforcement of IMO and Government Regulations will already force many of the ships out of service, either because of physical deficiencies or through highlighting their lack of financial viability. In the case of state owned shipping companies this aspect is easier to control. In addition to that, purchase of second-hand vessels from abroad are prohibited. Govt

By the year 1985 the ordering of newly built conventional vessels up to the size of 5,000 GRT has to be directed to domestic shipyards as for ships of 20,000 GRT by 1990. Meanwhile ordering larger and or specialized vessels, which the domestic shipyards are not yet able to build,

can be done in foreign shipyards. ✕

IV.2.Registration of ships rules and procedure

Registration is an administrative act by which nationality is attributed to a ship by a state. A ship registered by a state in accordance with the requirements of its law, is placed on the shipping register of the state. The shipping register of each state lists the ships which are registered in that state and which therefore, come within the national jurisdiction of that state.

When a ship is upon the high seas, she is outside of the jurisdiction of any state. But this is against the international law and its principle that she must belong to a certain state, for effective control according to international conventions.

So, the purpose of the shipping register is to provide a record of ships and as evidence of ownership the flag state having this record can control these ships, which are obliged to follow national rules and regulations.

On the other hand of course, ships enjoy the privileges of being under that flag. By placing a ship on its shipping register a state assumes the authority to exercise over the ship the power inherent in the jurisdiction of the flag state and undertakes the national and international responsibilities of a flag (state of nationality) in relation to that ship.

In the article 5 of the United Nations Convention 1986 on condition for registration of ship in line with the Role of National Maritime Administration has mentioned some considerations as follows :

1. The flag state shall have a competent and adequate National Maritime Administration, which shall be subject to its jurisdiction and control.
2. The flag shall implement applicable international rules

and standards concerning, in particular, the safety of ships and persons on board and the prevention of pollution of the marine environment.

3. The maritime administration of the flag state shall ensure :

- (a). That ships flying the flag of such state comply with its laws and regulations concerning registration of ships and with applicable international rules and standards concerning, in particular, the safety of ships and persons on board and the prevention of pollution of the marine environment;
- (b). That ships flying flag of such state are periodically surveyed by its authorized surveyors in order to ensure compliance with applicable international rules and standards;
- (c). That ships flying the flag of such state carry on board documents, in particular those evidencing the right to fly its flag and other valid relevant documents, including those required by international conventions to which the state of registration is a party;
- (d). That the owners of ships flying the flag of such state comply with the principles of registration of ships in accordance with the laws and regulations of such state and the provisions of this convention;
- (e). The state of registration shall require all the appropriate information necessary for full identification and accountability concerning ships flying its flag.

In Indonesia the adequate provision for ship registration is Ship Registration Regulations of 1933 as the basic law of registration, change of ownership and mortgage.

The process of registration and change of ownership if all requirements have been fulfilled takes, at the latest:

- Registration/change of ownership deed : about 14 days.
- Mortgages deed : about 14 days.

The completion of ship registration is often obstructed by matters as follows :

- a. Inadequate awareness of ship owners to comply completely with applicable ship registration regulations.
- b. Selling and buying of ships by installments often cause the obscurity of legal status.
- c. There are some ship selling and buying transactions with foreign parties where the ships are not provided with a deletion certificate.
- d. Selling and buying of ships have sometimes been done without doing the change of ownership.
- e. There are still shipping companies which mortgage their ships without making a mortgage certificate, but only by submitting a seaworthiness certificate for small vessels to the bank as a security.

So, registration of a ship is used as evidence of the right to fly the flag of the state as well as of the right of ownership.

IV.2.1. Registration Procedure

A. Ship Registration :

According to the Government Policy, every ship which has been owned by shipping companies in Indonesia or a national shipping company, whether there are state shipping companies or private shipping companies, unless exempted from registration must be registered in Indonesia through The Directorate General of Sea

Communications, the Ministry of Communications because, this is the main task of the Directorate of Marine Safety under the Directorate General of Sea Communications which is to examine the measurement calculations of ships as well as the registration and to issue nationality certificates. This Sub-Directorate in principle has no planning function, but concentrates on the process of examination and issue of certificates.

The working inputs are national and international regulations and outputs are certificates.

In Indonesia, the coordination links and those involved in the activities of ship registration are :

- a. The shipping company;
- b. The Directorate of Marine Safety;
- c. The Harbour Master's Offices;
- d. The dockyards;
- e. Bureaus of classification societies;
- f. Regional Government;
- g. Tax office;
- h. Banks;
- i. Notary public.

In addition, the Harbour Master has to check all necessary certificates and licenses of all vessels calling at the port, which he is responsible for. This is a lot of administrative work for his office as well as for the shipping lines. If the ships, their required certificates and licenses as their validity were properly filed and monitored. Such vessels would only be checked once a year or once each two years since the file would clearly indicate when the validity of certificates/licenses would expire.

General provisions, which have been mentioned in the Uni-

ted Nations Convention on conditions for registration of ships, 1986 in the Article 4 are the following :

1. Every state, whether coastal or land-locked, has the right to sail ships flying its flag on the high seas.
2. Ships have the nationality of the state whose flag they are entitled to fly.
3. Ships shall sail under the flag of one state only.
4. No ships shall be entered in the registers of ships two or more states at a time, subject to the provisions of paragraphs 4 and 5 article 11 and article 12.
5. A ship may not change its flag during a voyage or while in a port of call, save in the case of real transfer of ownership or change of registry.

B. Procedure:

An application is submitted to the Directorate General of Sea Communications under the Ministry of Communication through the registrar of ships for permission to register the vessel in the Indonesian registry.

The following details and documents must be provided, among other things, as follows :

- Present name of the ship;
- Name under which she is proposed to be registered;
- Time and place of built;
- Name and address of builders;
- Gross and net tonnage;
- Present flag;
- Type of vessel;
- Classification society;
- Location of the vessel at the time of application;
- Proposed area of employment;
- Names and addresses of directors;
- Names and addresses of shareholders;
- Certificate of incorporation of the shipowner;

- Memorandum and articles of association;
- Certificate of the Registrar of companies or agencies or Directorate showing the Directors and/or secretaries;
- Confirmation by a classification society about the class of the ship and that new safety certificates can be issued.

IV.3.Nautical Inspection and Ship Classification

Ships to which SOLAS as modified by protocol apply shall be subjected to surveys and inspections by duly authorized officers of the Maritime Administration or by surveyors or organizations nominated or recognized by the administration. However, in all cases, the relevant maritime administration guarantees the completeness and efficiency of the inspection and survey.

IV.3.1.Objectives

The objectives of this sub-sector are to increase the safety and the efficiency of all activities related to sea traffic, by drafting and implementing rules and regulations :

- For the construction and operation of ships and off-shore constructions.
- On sea pollution and by inspection of the compliance with these rules.

IV.3.2.Tasks

The tasks of this sub-sector are :

- A. Issue classification rules for the construction of ships and off-shore construction;
- B. Implement International (IMO) and National rules and regulations in Indonesia related to :
 - 1. Safety equipment.

2. Radio equipment.
 3. Pollution prevention equipment.
 4. Fire-fighting equipment.
 5. Fleet personnel requirements.
- C. Check design and calculations of new ships and off-shore constructions.
- D. Issue certificates and execute surveys related to :
1. Hull.
 2. Machinery/electrical equipment.
 3. Loadline calculation.
 4. Safe construction.
 5. Safety equipment.
 6. Radio equipment.
 7. Crew qualifications.
 8. Seaworthiness.
- E. Register ships and issue legally valid registration certificates.
- F. Perform inspection in compliance with maritime rules and regulations.

IV.3.3. Present condition

The Government has provided laws and regulations concerning institutions as a basis for the performance of the tasks related to the development of marine safety which constitutes one of the most important factors to achieve the missions of the Directorate General of Sea Communications, as follows :

1. The Presidential Decree No.45 of 1974 in connection with No.15 of 1982 concerning the task of the Minister of Communications as an assistant to the President, the Minister performs a part of general governmental and development tasks in communications.
2. The Decree of the Minister of Communications, No.KM.415/U/Phb-75, of 2nd September 1975 in connection

with No.KM.164/07.002/phb-80, of 14th July 1980 concerning the task of the Director General of Sea Communications is "to perform a part of the main tasks of the Minister of Communications in Sea Communications by virtue of the policy provided by the Minister".

3. Based on the Ministerial Decree as abovementioned that the task of the Directorate of Marine Safety is:

"to perform a part of the main tasks of the Directorate General of Sea Communications in shipping and marine safety by virtue of the policy of the Directorate General of Sea Communications".

To perform the abovementioned tasks, the Director of Marine Safety has the function :

- to prepare technical requirements for ship building and ship modification and its equipment;
- to inspect the performance of ship maintenance conforming to applicable provisions;
- to arrange the mastering of the crew and to verify their diplomas;
- to take actions and investigate accidents, sea disasters and submit the investigation report to the admiralty court for further considerations;
- to arrange the measurement, registration and change of ownership;
- to decide the call sign of the ship;
- to study and to set up legislation on shipping, marine safety, and seamen power;
- to keep order and security at harbours;
- to prevent and to combat of pollution at sea.

4. The Decree of the Minister of Communications, No.407/U/Phb-76 of 1976 concerning the task of the Head of the Regional office of sea Communication is :

"to perform the tasks of the Director General of Sea Communications in his authorized territory pursuant to the policy of the Director General of Sea Communications".

To perform the aforesaid tasks, the Head of the Regional office of the Directorate General of Sea Communications has the function :

- to improve the performance and give directions as to the operational activities in sea transportation, marine safety, port and dredging, pilotage, navigation, marine telecommunications, maritime service, sea and coast guarding and SAR;
- to supervise and secure the operational performance and the development of units of the Directorate General of Sea Communications;
- to give information and technical assistance to the head of the Representative office of the Department of Communications in his territory.

5. The Decree of the Minister of Communications No. KM 47/OT/PHB078, of 8th March 1978 concerning the task of the Harbour-Master is :

"to undertake the tasks of inspection of harbour, ship safety, ship measurement and registration as well as the activities of maritime service".

To perform the aforesaid task, the Harbour master has the function :

- to inspect the compliance with harbour and navigation regulations, and issue port clearance and impose shipping and ship safety regulations;
- to investigate ship accidents and disasters;
- to lead the fire fighting operation on board ship;
- to undertake the ship registration, change of ownership, and issue the certificate of the nationality of the

ship;

- to perform the inspection of ship safety,undertake the ship measurement and maritime service activities;
- to take care of the administration,domestic affairs, finance,statistics,receipt of non-tax dues.

6.Ship Ordinance of 1935 has mentioned that :

A.the task of the Director General of Sea Communications is "to lead the performance of supervisory tasks on shipping provided by virtue of the ship ordinance of 1935".

B.the task of the Director of marine safety is on behalf of the Director General who undertakes technical training and supervision of ship safety.

C.The tasks of the harbour-master :

- to perform the supervisory tasks on marine safety by the ship ordinance of 1935 under direction of the Directorate General;
- to supervise ship safety in their respective authorized area.

7.Harbour Regulation of 1925 has mentioned that the task of the harbour-master is to implement and enforce as well as control the compliance with these harbour regulations.

IV.3.4.Main primary processes

A.Drafting and implementation of rules and regulations.

B.Issuance of certificates.

ad.A.Drafting and implementation of rules and regulations:

- Develop and implement rules when required by the

Government or by private enterprises for standards in safety of construction, equipment and operating procedures of ships and off-shore constructions.

- Carry-out technical research on materials, constructions, equipment etc.
- Adjust the rules as required by technical developments.
- Inspect whether the rules are observed.

ad.B.Issuance of certificates

- Select a classification society and decide in what country a new ship shall be registered.
- Check the design of new ships.
- Survey during the building of ships and after completion ship's hull, machinery and equipment.
- Measure the ship for registration.
- Issue classification certificates, safety certificates and registration certificates.
- Inspect on a regular basis when renewal of certificates is required.

IV.3.5.Organization

The organizations involved in this sub-sector are :

A.For drafting and implementation of rules and regulations :

- 1.The Directorate of Marine Safety, Directorate General of Sea Communications.
- 2.The Directorate General of Oil and Gas (MIGAS) Ministry of Mining and Energy.
- 3.Inspection division of harbour-masters.

B.For issuance of certificates,classification societies

such as :

- 1.The Indonsian Classification Society or P.T. Biro Klasifikasi Indonesia (BKI) which is responsible to the Ministry of Communications-Directorate General of Sea Communications.
- 2.Lloyd's Register of Shipping.
- 3.American Bureau of Shipping (ABS).
- 4.Det Norske Veritas (NV).

Indonesian Classification Society or P.T. BKI (Biro

Klasifikasi Indonesia)

To cope with the development of the Indonesian Merchant fleet which is continuously increasing, the Government deems it necessary to establish a national/Indonesian Classification Society. To that end, the Government issued the Government Regulation No.28 of 1964 which is then followed by the Decree of the Minister of Communication No.TH 1/17/1 which obliges all Indonesian ships having the length of 20 meters or more, ships of 100 BRT or more or propelled by propulsion of 100 HP or more to be classed by P.T. BKI.

P.T. BKI has authority to issue the class certificate, load-line certificate and machinery certificate to Indonesian ships which are conforming to the class requirements of BKI.

The duties and responsibilities of the classification society are :

- a.to examine ship drawings or to check the design of ships and off-shore constructions which are related to the class requirements ;
- b.to test materials, components and ship's appliances which are going to be used ;
- c.to supervise and control the performance of the cons-

truction and modification when adjusting to the class requirements ;

d.to go along in the ship's sea trial ;

e.to prepare and submit the calculation sheet of the load line to the Director General of Sea Communications.

The Directorate General of Sea Communications is responsible for measuring and registering ships under Indonesian Flag.For this purpose,the certificates issued by the classification Societies must be approved.

The Directorate General is also responsible for issuing and updating rules and regulations for :

- Construction certificates.
- Safety equipment certificates.
- Radio certificates.
- Seaworthiness certificates.

The inspection of these certificates is carried out by surveyors of the harbour master office.Some harbour masters perform surveying functions themselves.Harbour--masters can issue limited dispensations if the requirements are not met.

Issuing, updating and inspecting registration and safety rules and regulations for off-shore constructions is the responsibility of the Directorate General MIGAS of the Ministry of Mining and Energy.

The safety of shipping will get increasing attention. Issuing of rules and regulations,and control of compliance will consequently grow in importance,in particular because new maritime laws will promulgated in the coming years.The implementation of rules and updating of maritime laws are constrained by cost implications for the maritime industry.It is expected that in the future

implementation of new or amended maritime laws, rules and regulations will be accelerated, and the widely used system of dispensations will be abolished.

On this occasion, some problems can be shown concerning marine safety such as :

1. The Classification Society of Indonesia which is given an authority by the Government to oblige Indonesian ships to be classed at the Indonesian Classification Society (BKI) still cannot play a role and has not been recognized by the International Association of Classification Societies, so that Indonesian ships which trade in the international voyages have to use dual class.

2. Non-existence of a factory which produces ship safety and navigation equipment having international standard causes most of the needs for ship safety equipment to be bought abroad.

Those which are able to be produced domestically are as follows : life-jackets, life buoys and life-rafts, whose quality cannot match foreign products of the same.

3. The existence of a laboratory which undertakes verification, testing and research of navigation equipment and instruments as well as telecommunication equipment etc. may have a great impact in satisfying the needs for ship instruments and equipment which have to be carefully verified, tested or observed regularly and orderly.

4. Regarding the above mentioned matters, the Government should meddle in providing a ship safety equipment factory and nautical laboratory which can be managed by the Government or private sector. For that reason, there should be international standard arrangements so that the quality of the factory's products and such laboratory can be guaranteed.

IV.4.Manpower Development in The Maritime Sector

This sub-chapter first of all discusses the need for manpower planning and development.This need is identified through the quantity of the activities to be carried out and through describing the qualitative requirements for effective manpower planning and development.

IV.4.1.The need for manpower development

The need or the demand for manpower development will be described in a quantitative and qualitative manner.

As a result of the increase in activities,the sector will grow considerably.This growth will be reflected in larger numbers of people.In the next decade the total workforce in the maritime sector will increase from 302,918 to 329,307 (see Annex IV-4-1-(1)).This increase alone will put the sector under a considerable strain.How to plan, coordinate,control all the required activities in the field of manpower planning and development will ask much of the available staff.But there are other developments too.As a result of increased productivity requirements, the sector will also have to improve its effectiveness. It will become more important to have the right man at the right place at the right time.The sector will have to improve the execution of its tasks; it will become increasingly important to plan,coordinate and control manpower development.All these developments affect the necessity to introduce manpower planning on a large scale,and will probably lead to the introduction of computer assisted techniques.The quantitative and qualitative need for manpower development are described below.

IV.4.1.1.The quantitative growth of the sector

Between 1983 and 1989 total manpower in the

maritime sector is expected to decrease from 302,918 to 296,262. It is expected that 1994 the sector will employ some 329,307 persons.

This development is illustrated below in table IV-4-1-1(1) :

Table IV-4-1-1(1) Manpower in Maritime Sector :

	1983	1989	1994
. Ports	61,600	55,950	58,760
. Shipping	199,100	179,900	199,575
. Dock and Shipyard	16,500	23,000	26,000
. Technical Support	22,589	33,630	40,277
. Management and Managerial Support	3,129	3,728	4,695
T o t a l	302,918	296,262	329,307

As a result of the expansion of the sector, many activities have to be carried out in the field of manpower planning and development.

For example, if it is assumed that the selection and recruitment of new employees take place a) through the planned expansion, and b) due to replacement.

And if it is conservatively-assumed that replacement amounts to about 5% annually of the workforce (as a result of retirement, resignation, dismissal, transfer, promotion), during the next 10 years, more than 190,000 persons will have to be recruited (figure below in table IV-4-1-1(2)).

The selection, recruitment, placement, training, promotion,

payment,evaluation,etc. of all these employees alone with form a gigantic task for the managers of the organization in the sector.We only have to imagine that all these new people have to be processed,registered,administered, planned,coordinated and controlled next to the existing staff,and it provides an idea of the workload for the personnel and planning departments.This is to be carried out regarding promotion,evaluation,training,retirement, welfare,etc. however, it is not necessary to prove a point beyond conviction.Now we have an idea of the need for manpower planning and development.

Table IV-4-1-1(2) Recruitent in Maritime Sector
(excluded Perahus):

	1984/1989	1989/1994	1984-1994
Ports	12,250	16,600	28,850
Shipping	31,000	64,500	95,500
Dock and Shipyard	12,800	16,500	29,300
Technical Support	18,500	16,000	34,500
Management and Managerial Support	1,700	1,850	3,550
T o t a l	76,250	115,450	191,700

IV.4.1.2.The Qualitative requirements for manpower planning and development.

In all organizations within the sector,be they large or small,developments occur.No organisation is in a static entity.People come and go,requirements change with new technologies,vacancies need to be filled,new objectives have to be reached,and so on.

From above (table IV-4-1-1(1)) we understand that as a result of the growth of the sector, many activities in the field of manpower planning and development will have to take place. In a number of cases efforts will double within the next ten years for instance in the technical support sector. Here the number of staff will increase from 22,590 in 1983 to 40,277 in 1994 (see table IV-4-1-1(1)).

It is estimated, that in the different sectors as a whole, during the next five years more than 115,000 people will have to be recruited, i.e. some 23,000 per year.

This is a gigantic task for the organizations within the sector, not only because they have to plan, coordinate, control, and/or execute these activities, but also because each change in the personnel of the organization involves a lot of administrative work: data need to be compiled, files need to be updated, reports need to be formulated and recorded, and so on.

The execution of all these activities will by itself form a problem. These problems are increased by the fact that the sector not only grows, but at the same time endeavours to increase the quality of the staff and its output.

This objective will only be possible to reach, when the personnel and planning departments are extremely well provided with staff and equipment and make use of simple straightforward good standardized procedures.

Each organization should at all times know in advance what the manpower consequences are of the developments that will take place in the near future, so that they can prepare and inform the employees and managers of what they need to do in the area of manpower planning and development.

IV.4.2.Educational and Training Facilities

One of some important factors in order to support manpower development in the maritime sector is to develop and establish educational and training facilities. There are some institutions which are involved in the executing of educational and training programs in the maritime sector which will be given below. However, all the activities of maritime education and training are organized and coordinated by the maritime education and training centre of Directorate General of Sea Communications (Pusdiklat Laut).

IV.4.2.1.Maritime Education and Training Centre

(Pusdiklat Laut)

The Maritime Education and Training Centre is responsible for planning, coordinating, controlling and evaluating all maritime education and training institutions as directed by Head of Education and Training Agency of the Ministry of Communications.

-Major functions :

- (1) Establish maritime education and training programs.
- (2) Arrange a maritime education and training system, i.e. curriculum didactic, method of instructions training material and supplies.
- (3) Supervise maritime training institutions in the implementation.
- (4) Control and evaluate the implementation of the programs.

-Organizational structure:

Pusdiklat laut consists of :

- (1) General Administration Division : administer personnel, general affairs and financial matters.

- (2) Program Development Division :develop training program,review and formulate curriculum,method of instruction,didactic,instructor requirement,training material and examination.
- (3) Program Implementation Division :support training institutions,conduct fellowship in training with other institutions,formulate guidance in training implementation,in service training and promotion training.
- (4) Evaluation and Control Division :control and evaluate training activities conducted by training institutions.

IV.4.2.2.Ports

There is no formal education system in the port sector. The training is mostly carried out as on the job training.

The Port Workers Training Centre (PLTK=Pusat Latihan Tenaga Kerja Kepelabuhan) in Jakarta is the only official centre for upgrading of port workers.It is located at Jalan Kramat Jaya,kompleks Rudin YUKA,Tanjung Priok. The centre is self supporting and is only indirectly supported by the Government because of the regulations for port workers.

The extension plans for the next coming years include welding courses for dockyard workers and fire-fighting courses for fleet personnel.All courses are adapted to more or less experienced port workers.

The teachers are experienced supervisors and ex-merchant marine officers with some experience in cargo handling. In the future the number of full-time teacher should be increased,but the use of part-time teachers with port experience remains very important.

The facilities are in a condition which is normal for Indonesia, but the equipment has to be replenished. Teaching is done in the normal way (chalk and blackboard) but the teachers are interested in all kinds of modern teaching methods. Slides and films are essential to shorten the duration of particularly the upgrading courses so that the number of students can be increased.

IV.2.3. Shipping

There is a good educational system in the shipping sector, at least as far as the fleet personnel is concerned, mainly due to the International Conventions. In the past the system was changed from the former Dutch system into the Kings point system. At present Indonesia has its own system adapted to the Indonesian system. The certificates for fleet personnel are listed below (see also Annex IV-4-2-(1)).

1. Certificate for masters and deck officers

MPT : Mualim Pelayaran Terbatas (restricted)

- Officer in charge of a navigational watch on ships of less than 200 GRT on coastal voyages.
- IMO recommendation : an endorsement to qualify for duties as master.

MP I : Mualim Pelayaran Inter-insulair (Inter-island)

- Watch keeping officer on ships of 200 GRT or more on coastal voyages.
- IMO recommendation (interim measure):
Qualification for chief mate on ships of between 200 and 1600 GRT on coastal voyages; qualification for master by endorsement.

MPB III : Mualim Pelayaran Besar (U.K.: ocean-going

second officer)

- Watch keeping officer on ships of 200 GRT or more on unrestricted voyages.
- IMO recommendation; no special comment.

MPB II :Mualim Pelayaran Besar (U.K.: ocean-going first officer)

- Chief mate on ships of 1600 GRT or more on unrestricted voyages.
- IMO recommendation : qualification for master on ships of limited size on inter-island voyages by endorsement.

MPB I : Mualim Pelayaran Besar (U.K.: ocean-going master)

- Master on ships of 1600 GRT or more on unrestricted voyages.

2.Certificates for Engineers

JS (MD)

Juru Mesin - Juru Motor

- Engineer on ships in local trades and engineer officer in charge of a watch on ships of limited power on inter-island voyages.
- IMO recommendation the conventions do not state provisions for the certification of engineer officers on ships of less than 750 kw power, this certificate may between 750 and 3,000 kw power on coastal voyages.

AMK IS

Certificate

- Watch keeping engineer officer on ships of more than 750 kw power on unrestricted voyages.

- Second engineer of chief engineer on ships of limited power on inter-island voyages.
- IMO recommendation : to qualify for chief engineer on ships of limited power on inter-island voyages an endorsement must be provided in regard to the required sea service.

AMK A Ahli Mesin Kapal (U.K.: second engineer)

- Engineer officer in charge of a watch on unrestricted voyages.
- Second engineer on ships of limited power on unrestricted voyages.
- IMO recommendation : no special comment.

AMK B Ahli mesin kapal (U.K. : First Engineer)

- Second engineer officer on unrestricted voyages
- Chief engineer officer on ships of limited power on unrestricted voyages.
- IMO recommendations : no special comment.

AMK C Ahli mesin kapal (U.K. : Chief Engineer)

- Chief engineer officer on ships of 3,000 Kw power and more on unrestricted voyages.
- IMO recommendations : no special comment.

The IMO regulations provide manning scales for :

- Master and deck officers
- Engineer officers
- Ratings
- Catering and service staff
- Radio personnel.

All manning scales are to be expanded to deal with passenger ships, tugs, sailing ships, etc. and to deal with special safety qualifications and training for service on ships carrying hazardous cargoes.

It should be noted that the obligatory course for the certificate of proficiency in survival craft and the course for radar navigation the curricula are available, but have not yet been carried out. In addition the fire-fighting courses for all officers on board ships of 200 GRT or more are insufficient (in number, location and equipment).

In the recommended courses special attention should be given to training in personnel survival techniques, fire-fighting for personnel on oil, gas and chemical tankers, for deck officers to the use of radar simulators and to safety on ships carrying hazardous cargo. The obligatory courses for officers in oil tanker safety, chemical tanker safety and liquefied gas tanker safety should be provided by the shipping companies, as is being done by Pertamina (State Oil Company).

For shore personnel there are no training systems or certifications, except the shipping companies internal training and the training of the KTK (shipping administration/Ketatalaksanaan Pelayaran) at the PLAP (Educational Centre of Nautical Expert), Jakarta. The latter (KTK) was designed to train Directorate General of Sea Communications personnel, but could be expanded to also include shipping company personnel.

There are five official Nautical Colleges which are located as follows : (see also Annex IV-4-2-(2)).

Place	Name	Address
Jakarta	KUTIP (Rehearsal and Additional of Nautical Course/Kursus Ulangan dan Tambahan Ilmu Pelayaran)	Jl.Melawai XII-XIII . 267 Blok N/I
Jakarta	PLAP (Educational Centre of Nautical Expert/Pusat Latihan Ahli Pelayaran).	Jl.Mangga dua, Gunung Sahari, Ancol.
Semarang	BPLP (Education and Training Nautical Colleges/Balai Pendidikan dan Latihan Pelayaran).	Jl.Singosari 2A
Surabaya	BPLP (Education and Training Nautical Colleges/Balai Pendidikan dan Latihan Pelayaran).	Jl.Hang Tuah 5
Ujung Pandang	BPLP (Education and Training Nautical Colleges/Badan Pendidikan dan Latihan Pelayaran).	Jl.Seram 173

In the shipping sector all these courses and colleges should be aiming at meeting the commitments of the Indonesia Government in respect to the STCW 1978 convention. During 1981 and 1982 special courses were given to ratings at the request of the shipping companies due to

the IMO convention STCW 1978, entering into force in April 1984.

If we look at the pattern of education, training and certification for seafarers in some of the European countries, it will be noted that they have adopted systems which they have found to be suitable to their individual conditions and requirements.

The ultimate aim however of any pattern of training is, and should be, to produce well qualified seagoing personnel who have followed a well planned programme of training leading to the issue of appropriate certificates of competency in their respective fields.

It is not necessary, however, that the countries which follow this system should follow an identical pattern.

All that is required is that they should generally conform to the basic criteria in respect of sea service, syllabi etc. having regard to the following 2) :

- a. The curricula of any education and training programme should be concerned with aims which are relevant to the field with which it is concerned, and the syllabuses making up the programme should be related to specified objectives.
- b. In the maritime training field, the principal aim is to produce a seafarer who is professionally competent, with the ability to provide an effective input to the ship's operational team, and who would be conscious, at all times, of the vital necessity that the ship and its machinery installation be operated safely; and who would have a due regard and respect for the environment.
- c. The IMO "International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978" provides a set of regulations and principles of

guidance that enables main objectives to be identified. The objectives assist in developing course framework and these in turn allow curricula and syllabuses to be formulated.

So far, Indonesia has introduced some regulations dealing with seafarers' training, examinations and certification which are as follows :

1. Presidential Decree No.60 Of 1986 concerning the ratification of International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (LN No.73 tahun 1986), of 4th December 1986.
2. Instruction of the Minister of Communications No.IM 4/HK.208/Phb-84 concerning the implementation for the provision on standards of training, certification and watchkeeping for seafarers, 1978.
3. The Decree of the Director General of Sea Communications No.48/105/19, of 15th October 1976.

The problems now how to implement the STCW Convention of 1978, because it may create difficulties to Indonesian ships in foreign countries if there are some officers of crews who do not meet the provisions of STCW of 1978, at least delays of ship departures will happen because it is possible that testing will be imposed on them by the Port State Authority abroad.

IV.5. Prevention of Marine Pollution

Ships have always used the waters on which they navigate to dispose their operational waste. Formerly, such waste consisted of garbage and sanitary waste, but today ships also discharge oily residues, like bilge water, sludge and used oils. Chemical and oil tankers wash out dirty tanks at sea and also discharge their dir-

ty ballast water. Moreover, the number and the size of ships sailing on the oceans have increased considerably in this century. Therefore, there is a cumulative effect of these facts in large-scale operational pollution.

A private study revealed that in 1980 about 1,588 million tons of oil were transported by sea and that in 1978 alone about 1.3 million tons of oil were discharged into the sea by ships 3).

This type of pollution has become a considerable problem. It is not only affecting coastal areas along the main shipping routes, but also vast areas of the oceans where shipping activities have not been prevalent.

Vessel-source pollution may damage fishing stocks and various other forms of marine life, and it also affects the tourist industries of countries.

It is, thus, essential that States take action to reduce and control vessel-source pollution of the sea for the preservation of the marine environment.

Such action can take the following three forms :

- (a). First, a state may take measures as a flag State in respect of its vessels. As such, it will prohibit national ships from discharging harmful substances. It will also enact provisions for the construction and equipment of national ships with a view to minimizing pollution;
- (b). Second, it may take action as a port state. This type of action takes the form of inspection of foreign ships in national ports. As a corollary, a state may extend its facilities for the reception of operational waste from ships to foreign ships visiting its ports;
- (c). Third, a littoral state may apply national provisions to ships navigating near its coasts. National legislation extends to the territorial sea and applies to

ships navigating there. Thus, a state may prescribe the discharge of harmful substances in its sea by any ship, regardless of its flag.

IV.5.1.Objectives

The objectives of this sub-sector are :

- Control and extinguish fire at sea, on ship, and in ports;
- Control and remove pollution at sea and in ports.

The prevention of fire and sea pollution by issuing of regulations and by inspection is at present the responsibility of the coastguard.

IV.5.2.Tasks

The tasks to be performed to satisfy these objectives are :

- Maintain and operate a fleet of fire-fighting boats and anti-pollution vessels;
- Maintain and operate shore based fire-fighting equipment.

IV.5.3.Organization

Fire-fighting in port and at sea is primarily a task of the coastguard although Pertamina (State Oil Company) performs this task in oil and gas terminals.

The coastguard has no special firefighting vessels, but they have fire-trucks in ports, and most of their patrol boats have fire-fighting equipment. Pertamina operates some fire-fighting vessels.

Anti-pollution measures are planned, controlled and coordinated by the Sub-Directorate of Pollution in the Directorate of Marine Safety of the Directorate General of Sea Communications. At present this Directorate General has no

anti-pollution equipment and therefore contracts private companies, such as Pertamina and Caltex for this operation. Developments in the fire-fighting sub-sector are strongly related to developments in the coastguard sector as described in paragraph III.1.6. of chapter III. The Directorate General of Sea Communications does not anticipate acquiring special fire-fighting vessels.

The situation in the anti pollution sub-sector is different. According to the Maritime Sector Investment Programme, the Directorate General of Sea Communications plans to purchase two anti-pollution vessels before 1989. They will be operated by the pollution sub-directorate of the directorate of marine safety in DGSC.

In Indonesia, responsibility for the control of marine pollution (or of activities that can pollute coastal waters) is fragmented among several departments at the national level and among various local bodies. For example, the Ministry of Agriculture regulates the import and use of biocides, the Ministry of Mines and Energy controls off-shore mining, the Ministry of Health sets water quality standards, and the municipality of Jakarta regulates sand and coral dredging and the release of industrial effluents. Counter measures against pollution are coordinated by the Directorate General of Sea Communications supported by the Department of Mines, Pertamina shipping division and the coordinating body for the Department of Defence (Navy and Water Police) and units of any other agency required under emergency conditions. The Ministry of Research and the Ministry of Justice each has a committee for marine pollution.

P.T. Pertamina is the state oil company under the Ministry of Mines and energy.

It is the policy of the Indonesian Government that oil pollution originating from offshore operations is of purely national concern and that any problem can be dealt with by the public authorities in charge and the oil companies involved. The operating company is required to have an approved contingency plan and to keep all necessary equipment readily available, in so far as that Indonesia is the major offshore oil producer in the region. In either case, the maritime (safety) administration needs to ensure that there is the necessary "contingency plan" to deal with marine pollution when it occurs in and around the waters of a developing country so as to be able to readily harness all available national resources for the purpose. Further, even for any sub-regional or regional cooperation in the combat of marine pollution, the existence of a national contingency plan in each of the countries concerned would have been a condition precedent 4). On Regional cooperation among Indonesia, Malaysia and the Philippines in the South East Asian region has been come out for the combat of marine pollution in which the centre office of this respected regional cooperation is located in Davao, the Philippines. So, it is very useful and necessary to intensify and extensify the respected regional cooperation in order to cope with the prevention of marine pollution.

Appropriately, Indonesia has introduced laws and regulations dealing with the combat of marine pollution in line with the protection of life environment as a whole :

1. Law No.4 of 1982 concerning the basic provisions to organize life environment (LN No.12 tahun 1982, TLN No.3215).
2. Presidential Decree No.65 of 1980 concerning the ratification of "International Convention for the Safety of

Life at Sea, 1974"(LN No.65 tahun 1986).

3. Presidential Decree No.46 of 1986 concerning the Ratification of International Convention for the Prevention of Pollution from ships, 1973 and the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from ships, 1973 (LN No.59 tahun 1986), of 9th September 1986.
4. The Decree of the Minister of Communications No.KM 167/HM 207/Phb-86 concerning International Certificate for Prevention of Pollution by oil and international certificate for prevention of pollution by noxious liquid.
5. The Decision of the Director-General of Sea Communications No.PY.69/1/11-86 concerning the implementation of the Ministerial Decree No.KM.167/HM 207/PHB-86 concerning International Certificate Prevention of Pollution by oil and International Certificate for Prevention of Pollution by noxious liquid.

However, since the establishment of the Ministry of State for Population and Environment, there has been effort, to integrate the environmental element into the country's socio-economic development strategy. This ministry's authority is limited to the coordination of environment-related activities and formulation of a general environmental policy and guidelines.

Regulatory powers remain in the hands of sectoral agencies such as the Ministry of Communication, the Ministry of Industry, the Ministry of Public Works, the Ministry of Mines and Energy, the Ministry of Agriculture and the Ministry of Public Health.

According to the rules of the Directorate General of Sea Communications structure, the main task of the sub-direct-

torate of Sea Pollution is to manage, supervise and administer the cases of sea and coast pollution. The management functions of this sub-Directorate also comprises the planning, licensing and supervision.

Since there is a product of IMO, that is, the International Convention for the Prevention of Pollution from ships and of the protocol of 1978 relating thereto, problems may arise in order to implement and fulfill the requirements of this convention such as :

1. The poor capability of the organization is to carry out the necessary function in order to combat marine pollution.
2. Inadequate people to do the job concerning the prevention of marine pollution.
3. Inadequate infrastructure, as regards equipment and reception facilities for ensuring prevention of pollution from ships.

The management functions of the sub-directorate of sea pollution also comprises the planning, licensing and supervision of the inputs, the reports from the harbour master concerning pollution incidents and the outputs which consist of regulations, licenses and advice. The coordination links show connections to the Port Administrations, the Harbour Master's office and third parties. Therefore, it has to be borne in mind that for such coordination and cooperation, Inter Departmental/Ministries will be the best way in order to cope the prevention of marine pollution as a national concern and efforts.

IV.6. Maritime Search and Rescue Development

In principle, a government is responsible for the provision of SAR services in its territory and territo-

rial waters. In 1972, through Presidential Decree No. 11, the Government of Indonesia enacted a new legislation establishing the SAR Board, abbreviated as BASARI, which is directly responsible to the President.

Its main task is to coordinate all SAR resources, or services at a national level, whether public or private, and all SAR operations in respect of the safety of property and human life, and to ensure that the Government's obligations under prevailing national and international regulations for providing prompt assistance in cases of shipping or aviation accidents are fulfilled and also advising the President concerning the formulation of a SAR policy.

IV.6.1. National Search and Rescue Board (BASARI)

BASARI gives overall direction and supervision to the SAR effort throughout Indonesia. Its membership comprises :

- | | |
|------------------------------------|--------------------|
| * Minister of Communication | - as Chairman |
| * Minister of Defence and Security | - as Vice Chairman |
| * Minister of Home Affairs | - as member |
| * Minister of Foreign Affairs | - as member |
| * Minister of Finance | - as member |
| * Minister of Social Affairs | - as member. |

If needed, the chiefs of staff of the Army, Navy and Air Force and the chief of the Police can be invited to participate in the formulation of SAR policies. The organizations under the coordination of BASARI are the following:

- The National Search and Rescue Agency (BASARNAS);
- Rescue Co-ordinating Offices (KKR);
- Rescue Co-ordinating Sub-Offices (SKR);
- Search and Rescue units.

In accordance with the above mentioned Decree, Ministerial Decree 164/80 defines that the prime organization unit within the Department of Communications responsible for the execution of the SAR service function is the National SAR Agency (BASARNAS). (see Annex IV-6-1-(1)).

IV.6.2. National Search and Rescue Agency (BASARNAS)

As the operational unit under BASARI belonging to the Ministry of Communication, BASARNAS has the practical task of marshalling and coordinating all SAR activities related to aviation and shipping accidents and natural disasters.

Its responsibilities include :

- a. Outlining technical policies and giving guidance to Rescue Coordinating Offices and other SAR operational units;
- b. Supervising, monitoring and mobilising available SAR resources;
- c. Carrying out research and development into SAR methods and procedures and institutional arrangements;
- d. Ensuring that all relevant laws and international regulations regarding SAR activities are met.

The area of responsibility of the Agency is divided into four search and rescue areas/districts under BASARI in which the coordination of search and rescue for each district is effected by a Rescue coordinating centre (KKR). The rescue coordinating centres are located at Jakarta, Surabaya, Ujung Pandang and Biak.

Each Search and Rescue area is further divided into Search and Rescue sub-areas/districts, coordinated by a Sub-Rescue Coordinating Centre (SKR).

In establishing a SAR service, the Government should utilize to the fullest extent the many and varied existing

facilities.

The International Convention for Safety of Life at Sea contains an obligatory provision for the master of a ship at sea on receiving a signal from any source that persons are in distress to proceed with all speed to their assistance. Under Regulation 10 (titled "Distress Messages - obligations and Procedures"), chapter V of the SOLAS Convention: "The Master of a ship at sea, on receiving a signal from any source that a ship or aircraft or survival craft there of is in distress, is bound to proceed with all speed to the assistance of the persons in distress informing them if possible that he is doing so". In addition, regulation 15 (titled "Search and Rescue") of chapter V (on safety of navigation) of the Safety of Life at Sea Convention provides that each contracting Government should undertake "to ensure that any necessary arrangements are made for coast watching and for the rescue of persons in distress at sea round its coast. These arrangements should include the establishment, operation and maintenance of such maritime safety facilities as are deemed practicable and necessary" 5).

IV.6.3. Coastguard

The Directorate General of Sea Communications has played and should play an important role in the provision of SAR services as it has many important facilities to serve SAR activities. The Directorate of Coastguard should represent the Directorate General of Sea Communications in the Search and Rescue Coordination at a national level.

One of the objectives of the coastguard organization is to enhance safety at sea by performing Search and Rescue (SAR) operations.

In order to reach this objective, the following tasks have

to be performed :

- to maintain and operate a fleet of harbour patrol boats and sea patrol-boats for search and rescue.
- to perform search and rescue operations, to investigate violations of pollution regulations, etc.

The Directorate for the Coastguard and the Coastguard Divisions of the Maritime Districts are responsible for planning, control and coordination of coastguard operations.

Sea-patrol operations of the Coastguard are performed by the Coastguard detachments which are responsible to the Maritime Districts.

There are 7 first class, 17 second class and 19 third class detachments (see Annex IV-6-3-(1)).

Harbour-patrol operations of the Coastguard are regulated by the Port Administrator. Fire-fighting assistance is sometimes provided by Pertamina.

As aforementioned, general control of search and rescue operations is performed by the SAR agency in which land, sea and air actions for search and rescue (BASARNAS) are centralized.

IV.6.4. Policies/Regulations

So far, Indonesia has introduced some regulations in order to organize the National SAR activities encompassed :

A. The Decree of the Minister of Communication

No. KM.104/SR.201/Phb-83, April 11, 1983 concerning the basic provision for replacement of SAR operation cost has to be the responsibility of Government.

B. The Instruction of the Minister of Communications

No. IM.4/HK-104/Phb-86, concerning utilizing the set of radio equipment and machineries with international fre-

quency SAR control for every ship and aeroplane which are owned by Government and used for patrol/watchkeeping, SAR ship and aeroplane for cargo or passengers.

C. Field guidance :

1. The Decision of the Head of BASARNAS
No. SKEP/17/V/1982, May 31, 1982 concerning the guidance for development of SAR potential.
2. The Decision of the Head of BASARNAS
No. JUKLAK/880/X/1982, October 27, 1982 concerning the ready Task of National SAR.
3. The Decision of the Head of BASARNAS
No. JUKLAK/871/X/1982, October 16, 1982 concerning the ready of SAR communications.
4. The Decision of the Head of BASARNAS
No. JUKLAK/883/X/1982, October 28, 1982 concerning SAR assistance.
5. The Decision of the Head of BASARNAS No. JUKLAK/06/-VIII/1984, August 7, 1984 concerning the OSC members for the SAR operation at sea.
6. The Decision of the Head of BASARNAS
No. SKEP/35/VIII/1982, August 21, 1982 concerning the special team for monitoring SAR operations.

IV.6.5. Cooperation in SAR Activities

Such cooperation which has been executed is as follows :

A. At a national level :

-
1. Cooperation with the Air Force of the Indonesian Army (TNI-AU) concerning now to organize two helicopters SAR BO-105 which are owned by BASARNAS, has been working well up to now.
 2. The cooperation with the vice Minister of Youth and Sports with which the realization for organizing the

basic training for youths as members of National Task Units of youth.

3. The cooperation with ORARI with RAPI in which both of these organizations are the Organization of Amateur Radio with its intention to utilize both of these organizations to send SAR news from headquarters to BASARNAS and vice versa.

B. At an international level:

-
1. Bilateral cooperation with Malaysia concerning Search and Rescue in the boundary between Indonesia and Malaysia. Up to now, the exercise together with SAR Malindo has been implemented 11 times.
 2. Bilateral cooperation with Singapore concerning Search and Rescue as giving each other assistance to implement SAR operations which have been executed in the territorial waters of each party (Up to now, - they have exercised SAR four times).
 3. The SAR cooperation agreement with Australia has given mutual assistance to execute SAR operations in the territorial waters of each party.
 4. So, in order to make the operation of Search and Rescue smooth, coordination among the various KPLP detachments, KPLP patrol boats, navigation fleet, radio stations and harbour master offices which are also established in this manner.

The coastguard operates at present 124 craft of which 92 are harbour patrol boats and 32 sea patrol boats. There are no fire-fighting boats, but most of the sea patrol and harbour patrol boats have fire-fighting equipment on board. Some fire-fighting boats are operated by Pertamina in the ports for oil and gas. The operation of the harbour patrol boats is the responsibility of the Port Adminis-

tration while operations of the sea patrol boats are the direct responsibility of the various coastguard detachments.

IV.7. Development of Navigation Aids and Facilities

IV.7.1. General

There is a development that coastal states enact traffic regulations to enhance safety of navigation, expedite the movement of ships and protect the environment. In particular, the growth of the transport of dangerous goods and the increasing intensity of shipping to and from states and in their territorial waters and adjacent zones have led to such regulations. This type of legislation provides for obligations for the master of a ship when entering a designated part of the territorial sea or internal waters.

More specifically, the rules oblige the master :

- (a). to give information about the ship, its name, nationality, length, draught, gross tonnage, kind of cargo, part of destination, navigational defects and estimated time of arrival at the pilot station;
- (b). to have and to operate communication devices;
- (c). to make use of the services of radar stations;
- (d). to make use of the information and advice of the traffic control authority;
- (e). to obey navigational orders given by the traffic control authority;
- (f). to proceed at a prescribed speed;
- (g). to observe the special local regulations for the prevention of collisions.

IV.7.2. Meaning of Navigational Aid

In this context, it means a lighthouse, lightship,

beacon,market buoy or any structure,device or apparatus which is established or maintained to be used principally as an aid to marine navigation and includes any vessel,-store,equipment or other property whose principal use is the servicing of an aid to marine navigation,but in the case of a ship other than a lightship.It does not include any light,structure,device or apparatus which is part of the ship.

IV.7.3.Establishment and Care of Aids

The establishment,superintendence,care and management of navigational aids shall be vested in a lighthouse authority.The character of or the mode of operating or exhibiting a navigational.

Indonesia is a maritime country composed of five major islands and a large number of scattered islands in the vast sea areas,and one of the largest maritime nations in the world lying between the two oceans and the two continents.

Reflecting the recent growth in economic,social and industrial sectors in the Republic of Indonesia,maritime traffic of large vessels passing through as well as inter-insular and local shipping are increasing conspicuously year by year,and thus uphill demand exists for provision of substantial coverages by visual and electronic aids to navigation.

Solas convention of 1974 to ensure the safety of life at sea came into force on May 25,1980.In particular it refers to the establishment and maintenance of aids to navigation,including radio beacons and other electronic aids as the volume of traffic justifies the degree of risk required.Hence,the strengthening of maritime transport power constitutes one of the urgent necessities.Especially for a steady growth of the Indonesian

economy, the improvement of sea transport capability is the prime requisite. It depends a great deal upon development of ports and harbours along with the improvement in the shipping sector, and also upon the development of aids to navigation as well as a maritime telecommunications network. As the maritime activities grow, the need for aids to navigation is bound to increase rapidly.

The Directorate of Navigation has the duty to execute a part of the main duties of Directorate General of Sea Communications in the field of navigational matters in line with the policy of the Directorate General of Sea Communications, and more specifically, among those missions included in their main duties which are:

- a. to manage navigational aids and coastal light facilities in order to secure navigation safety at sea off-shore and harbour.
- b. to manage electronics and telecommunications between ship and coast stations so as to secure safety of human life at sea and internal communication of Directorate General, and so forth.

There are 1st and 2nd class districts of navigation under the direct operational and administrative control of the Sea Communications district offices with the technical guidance of the Directorate of Navigation.

As for the maintenance and operation of aids to navigation, the whole nation is divided, as shown in Annex IV-7-3-(1), into five divisions with some areas overlapping the administratively divided areas of KANWIL in order to carry out the most effective operation of nav aids in remote areas and high seas. Those areas are respectively covered by 1st class districts of navigation. There are also second class districts of navigation and their areas are overlapped with those of the first

class. The prime responsibility of second class districts of navigation is to carry out all necessary maintenance and operation of the nav aids except major work for buoys.

IV.7.4. Basic Approach

As aforementioned, that the Republic of Indonesia is one of the largest maritime nations in the world, consisting of about 13,000 small to large islands and extending the total coastline of approximately 33,000 miles. Thus, with the factors of expansion in size of vessels and their increasing speed taken in due consideration in order to cope with the rapid development of national industries and further expansion of international trade, - substantial necessities exist for development and strengthening of sea transport efficiency. Especially for the steady growth of the national economy and for the export drive. The increasing maritime traffic recently being experienced has brought situations where growing dangers are to be foreseen in vessel traffic in main water areas especially in terms of collisions and strandings, and thus the smooth traffic may be hampered.

In the light of the above, the development of aids to navigation up to the coming years or in the future must take all the following factors into account to constitute the basic for examining the future demands for aids to navigation :

- a. Socio-economy.
- b. Main traffic routes and potentially congested waters.
- c. Marine fishery activities areas.
- d. Main channels.
- e. Local meteorological and sea conditions.
- f. Marine accidents, especially stranding and collisions.
- g. Existing aids to navigation.

Reference has also been taken into consideration in the planning of :

- (a).coordination and adjustment with the on-going and other planned projects concerned with aids to navigation.
- (b).relevant laws and regulations.

IV.7.5.Management

As described in this sub-chapter,the aids to navigation are under the managerial responsibility of the Directorate of Navigation,and the first and second districts of navigation are the local organizations in charge of their maintenance and operation. There are five (5) first class and nineteen (19) second class districts of navigation (total is the 24 navigation districts):the details of manpower,navaids and vessels per each district of navigation are shown in Annex IV-7-5-(1) together with the ships belonging to them.

The Directorate of Navigation,the maritime districts,the 24 navigation districts ,and the Hydrographic office of the Navy are involved in the activities of the navigation sub-sector.Coordination, control and planning of navigational aids,radio communications and sea charts is the responsibility of the Directorate of Navigation and the nine maritime districts.The 5 first class navigation districts and the 19 second class navigation districts have the operational responsibility for equipment and fleet.The Directorate General of Sea Communications is responsible for the budget for surveys and the production of sea-charts,but carrying out the survey task and production of the sea-charts is the responsibility of the hydrographic office of the Navy.

Organization schemes of the Directorate of Navigation, Directorate General of Sea Communications and a typical

maritime district office are presented in Annexes IV-7-5-(2) and IV-7-5-(3).

Pertamina is the State Oil Company under the Ministry of Mining and Energy which owns member of aids to navigation installed for the purpose of carrying out their operations for oil development and supply. The shipping Communication Department is in charge of the nav aids and their own coast stations.

FOOTNOTES TO CHAPTER IV:

- 1).The Fourth Five Year Development Plan (REPELITA IV)

for the Sub-sector Sea Communication,

1984/85-1988/89.
- 2).Captain Gur Saran Singh,Extra Master,An Introduction

to the "Establishment of a National Mercantile Marine

and Its Infrastructure in Developing Countries", at

the World Maritime University,Sweden 9 June to 13 June
1986,page 19.
- 3).United Nations,Economic and Social commission for Asia
and the Pacific,"Guide-lines for maritime

legislation", Bangkok,June 1982,page 350.

- 4).Professor P.S.Vanchiswar, "Establishment/Administra-

tion of maritime affairs in Developing Countries",

volume I,1984,page 83.
- 5).Ibid.,page 85 and 87.

CHAPTER V

Conclusions/Summary and Suggestions.

Indonesia is a maritime nation comprising a large number of small to large islands scattered in vast sea areas, therefore the shipping sector in the Republic of Indonesia plays a vital role for the development of the national economy as well as the social and industrial sectors..

Based on what has been mentioned in the previous chapters, the author would like to draw some conclusions which are given in the following :

1. The Minister of Communications is the top leader in communications who performs part of governmental and developmental tasks in communications. As the top leader, the minister makes and carries out his policies to undertake and foster the tasks of communications, and as far as the sea communications is concerned the minister authorizes the Director General of Sea Communications to carry out his tasks in Sea Communications.
2. The Director General is the responsible leader in Sea Communications who receives authorization from the Minister of Communications to carry out part of his tasks in Sea Communications. As the responsible leader, the Director General makes and carries out his policies to undertake and foster the tasks of Sea Communications.
3. The Director of Marine Safety is an assistant to the Director General who carries out the policies and part of the tasks of the Director General in shipping and marine safety. As an assistant to the Director General, the Director of Marine Safety undertakes supervision of technical aspects of the shipmaster's duties.

4. The Head of the Regional Office of the Directorate General of Sea Communications (Maritime District Office) is a deputy of the Director General and performs the tasks of the Director General in his territory. As a deputy of the Director General for his territory, he performs supervisory tasks, secures and fosters the performance of the policies of the Director General which are carried out by the Directorate General of Sea Communications in his territory.

5. The harbour master is the executor of the policies of the Director General in terms of shipping and marine safety, and maritime services as well as an enforcer of various regulations in terms of shipping and marine safety. Apart from being an executor, the harbour master according to various regulations, also has to :

- Control the implementation and compliance with the regulations by those who are obliged to implement them.
- Investigate violations and impose penalties either administratively or legally.

6. As the enforcer of law and policies of the Director General of Sea Communications, the harbour master is responsible :

- a. Operationally to the Head of the Regional Office of Sea Communications (Maritime District Office).
- b. Administratively to the Director General of Sea Communications.
- c. Technically to the Director of Marine Safety.

As regards the Maritime Administration in Norway, as aforementioned in chapter II, there are some ministries and organizations which are involved and coordinated with each other concerning maritime affairs. It seems to me, - that trade and shipping should be well integrated and

coordinated in order to support international and domestic trade, so as to be able to support the balance of payments of the country itself to be favourable.

I would like from what I have learned during these two years at World Maritime University to make the following suggestions for the establishment of proper maritime administrations and for ensuring that such maritime administrations do acquire the required capabilities so as to be able to administer our maritime affairs effectively and efficiently :

1. The national legislation should be established by adjusting the rules and procedures to comply with the situation, condition and needs of the country which is now carrying out development programmes in all sectors and by including provisions specified in the international conventions related to ship and marine safety.
2. Development and establishment of a national framework (interministerial structure or national commission) of cooperation and coordination for safety matters and an institutionalization of a comprehensive system among all administrations and services concerned with maritime matters. It seems to the author that an institutional programme should therefore be taken into account in order to get a system which can give optimum support to marine safety.
3. In the light of the ratification of the STCW Convention, the maritime administration shall make manpower programmes to get the manpower who can meet the standards, quantitatively or qualitatively. In addition to this, a suitable minimum certificated manning structure which would both conform to the requirements of the STCW convention and suit national requirements should be developed. The establishment under the auspices of

the Directorate General of Sea Communications of a proper structure dealing with the employment of seafarers after their graduation from maritime academies and other colleges should be decided. Such a structure may also have to play the coordinating role between training institutes and shipping companies in the planning of their personnel needs.

Furthermore, a maritime administration shall:

- Prepare appropriate rules and detailed syllabuses for the conduct of the various examinations and certification of seafarers.
- Ensure the availability of duly qualified and trained examiners of the appropriate disciplines.
- Ensure the availability of adequate and appropriate maritime training facilities for seafarers and establishment of new maritime schools for ratings in those ports where the greatest fishing populations are located, ensuring that the candidates are more familiar with the sea and its particularities so as to have the best quality on board.
- Ensure the availability of duly qualified and trained teachers.

4. Regarding prevention of marine pollution, the maritime administration has to increase the frequency of surveys, inspections and certification of ships, particularly tankers, gas carriers and ships carrying dangerous goods. As regards combating marine pollution, it is up to the Directorate General of Sea Communication on which falls the coordinating role to settle all the necessary elements of "contingency plan" to deal with marine pollution when it occurs in and around the territorial waters. To do so, the maritime administration has to ensure that all resources (material and personnel) of those structures which are under its jurisdiction (Port

Authorities, shipping companies, etc.) and other government agencies and the petroleum industry can be brought into operation at any time. Moreover, a well-knit framework of cooperation between all neighbouring countries (Malaysia, Thailand, Singapore, Brunei, the Philippines) for marine pollution purposes must exist. In addition to that, the maritime administration authority needs to ascertain from the Port Authorities that adequate "reception facilities" are provided to receive from ships oily residues and chemical cargo residues.

5. The Maritime Administration Authority has to ensure that there is a necessary national "contingency plan" and organization to respond to maritime distress situations in waters adjacent to the country. In this area also, Indonesia has to play its role regarding this matter, either on the regional or bilateral basis by the establishment of SAR organization between its neighbouring countries. These agreements are undoubtedly important for a better cooperation and for providing mutual assistance.
6. In order to support sea activities such as fisheries and mining, the coordination between the Directorate General of Sea Communications, the Directorate General of Fisheries and the Directorate General of Mining concerning marine safety related to fishing and off-shore construction activities should be developed and established.
7. A programme for equipment and supply facilities to meet the minimum standard, so that all tasks can be performed to the optimum should be established.
8. It seems, that the country may need to send more people or officers such as engineers, surveyors or administrative officers to be trained at World Maritime University on Maritime Safety Administration (Nautical), Maritime

Safety Administration (Marine Engineering), Maritime Education and Training (Nautical), Maritime Education and Training (Marine Engineering), Technical Management of Shipping Companies and General Maritime Administration.

9. The participation of our maritime administration in the work of IMO sessions and the circulation of its documents and publications and in other agencies at international and regional levels.

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POPULATION BY PROVINCE/ISLAND AND ANNUAL POPULATION GROWTH.

PROVINCE/ ISLAND	POPULATION			ANNUAL POPULATION GROWTH RATE (%)	
	1961	1971	1980	1961 - 1971	1971 - 1980
SUMATRA	15,739,363	20,808,148	28,016,160	2.86	3.32
JAWA	63,059,575	76,086,327	91,269,528	1.91	2.02
NUSA TENGGARA	5,557,656	6,619,074	8,487,110	1.78	2.01
KALIMANTAN	4,101,475	5,154,774	6,723,086	2.34	2.96
SULAWESI	7,079,349	8,526,901	10,409,533	1.90	2.22
IRIAN JAYA - MALUKU	1,547,930	2,013,005	2,584,881	2.69	2.79
TOTAL	97,085,348	119,208,229	147,490,298	2.10	2.32

SOURCE : STATISTIC INDONESIA 1982.

POPULATION IN INDONESIA

PROVINCE	A R E A		POPULATION (1980)		POPULATION Per Km ²
	SQUARE Km	%	X 1,000	%	
SUMATRA	473,606	24.67	28,016	19.00	59
JAWA	132,187	6.89	91,269	61.88	690
NUSA TENGGARA	88,488	4.61	8,487	5.75	96
KALIMANTAN	539,460	28.10	6,723	4.56	12
SULAWESI	189,216	9.86	10,410	7.06	55
IRIAN JAYA - MALUKU	496,486	25.87	2,585	1.75	5
TOTAL	1,919,443	100.00	147,490	100.00	77

SOURCE : STATISTIC INDONESIA 1982.

Annex I-2-3

FORECAST OF POPULATION UP TO YEAR 2 000

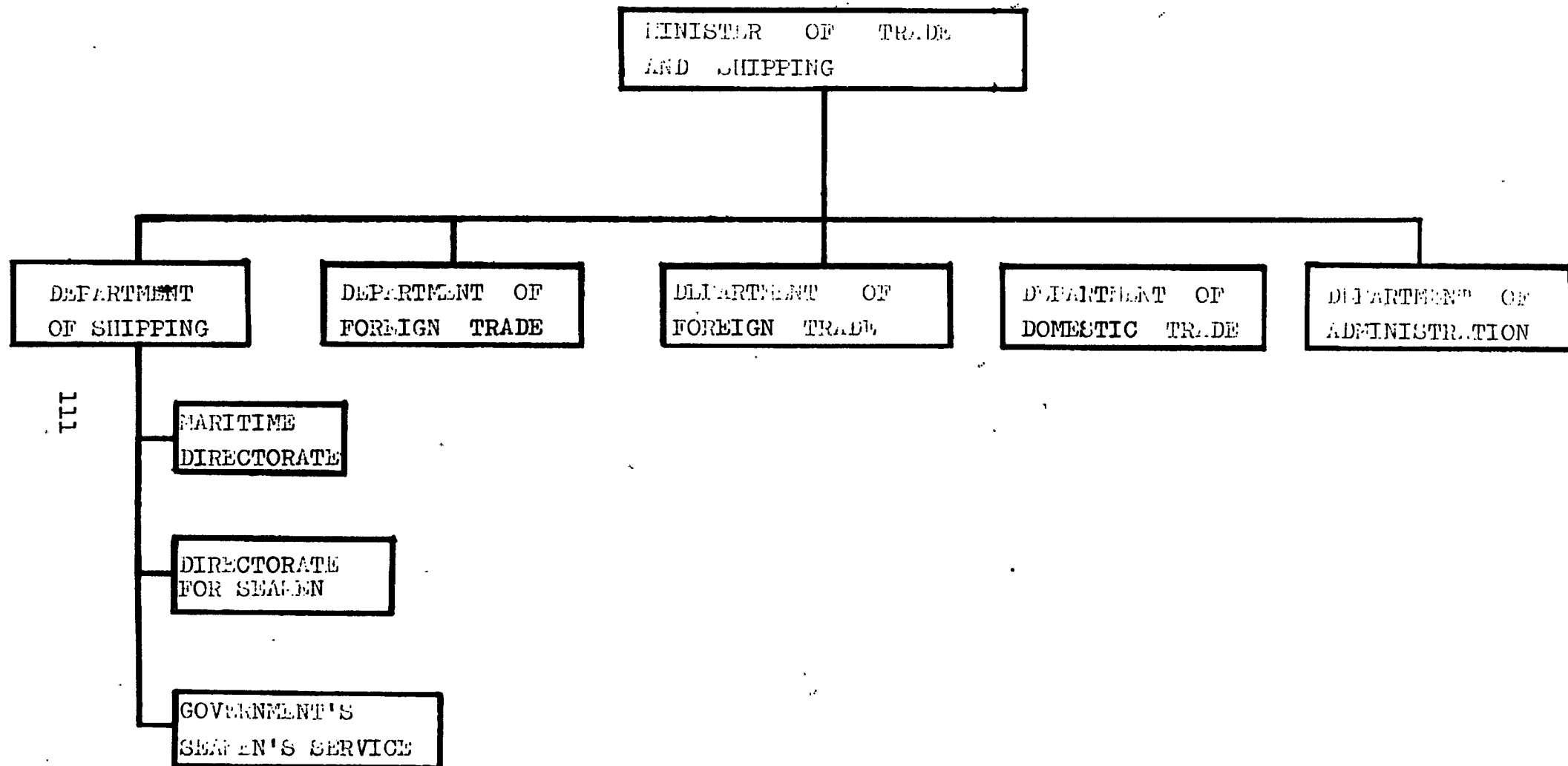
Unit : 1000 persons

YEAR	POPULATION	YEAR	POPULATION
1985	162,841	1993	190,794
1986	166,098	1994	194,610
1987	169,420	1995	198,502
1988	172,808	1996	202,472
1989	176,264	1997	206,521
1990	179,789	1998	210,651
1991	183,285	1999	214,864
1992	187,053	2000	219,161

SOURCE : STATISTIC INDONESIA 1982.

ORGANIZATION CHART OF THE MINISTRY OF TRADE
AND SHIPPING IN NORWAY

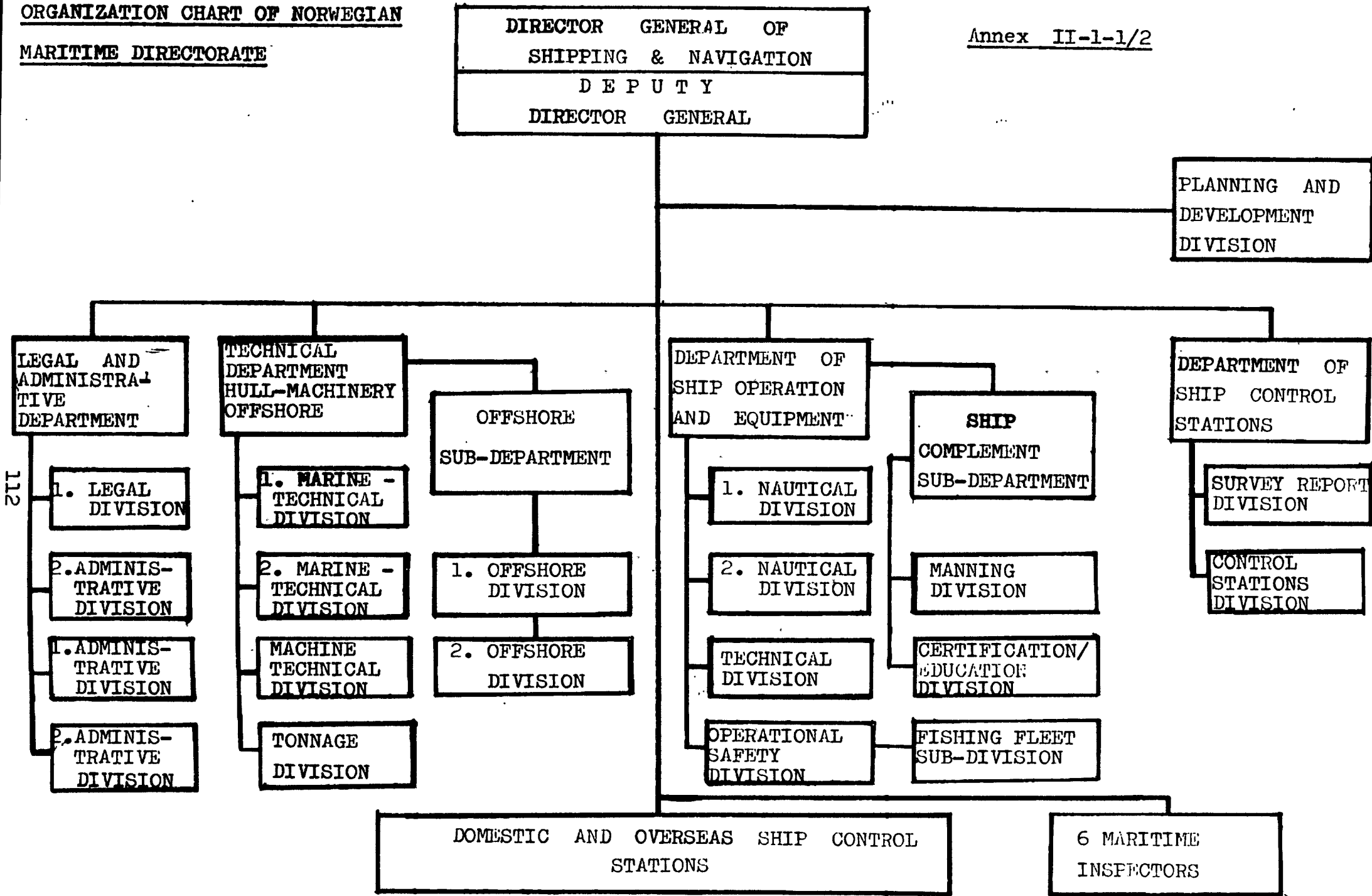
Annex II-1-1/1



②

ORGANIZATION CHART OF NORWEGIAN
MARITIME DIRECTORATE

Annex II-1-1/2



ORGANIZATION CHART OF DIRECTORATE FOR
SEAMEN IN NORWAY

DIRECTOR
GENERAL

Advisory
board

Annex II-1-1/3

LEGAL AND
ADMINISTRAT.
DEPARTMENT

Administra-
tive
division

Planning and
research
division

REGISTRATION
DEPARTMENT

1. Registra-
tion
division

2. Registra-
tion
division

3. Registra-
tion
division

PAYDEDUC-
TIONS
DEPARTMENT

1. Paydeduc-
tions
division

2. Paydeduc-
tions
division

Taxrefund
division

ACCOUNTANCY
DEPARTMENT

Book-
keeping
division

Accountancy
division

SOCIAL VEL-
FARE
DEPARTMENT

Social
service
division

DIRECTOR GENERAL OF FISHERIES

Annex II-1-1/4

DEPUTY DIRECTOR-GENERAL

ADMINISTRATIVE DEPARTMENTS

ADMINISTRATIVE
DIVISION

ADMINISTRATION
DIVISION

PERSONNEL
DIVISION

BUDGET AND
FINANCE
DIVISION

DIVISION OF
ADVISORY AND
INFORMATION

DISTRICT
CHIEF-
ADVISER

ADVISER

DEPARTMENT OF
LEGAL MATTERS
AND FISHING
ACTIVITY

DIVISION OF
LEGAL MATTERS

DIVISION OF
CRAFT AND
FISHING
EXPERIMENTS

DEPARTMENT OF
FISHERY ECONO-
MICS

DIVISION OF
ECONOMIC ANA-
LYSIS AND
STATISTICS

COST AND
EARNINGS
INVESTIGATIONS

COMPUTER
CENTER

DEPARTMENT OF
FISH QUALITY
CONTROL

CENTRAL-
LABORATORY

DIVISION OF
CHEMICAL-
ANALYTICAL
INVESTIGATIONS

DIVISION OF
CHEMICAL-
PHYSICAL
INVESTIGATIONS

DIVISION OF
MICROBIOLOGICAL
INVESTIGATIONS

DISTRICT
INSPECTORS

INSPECTORS

TECHNICAL
DEPARTMENT

DIVISION OF
BUILDING
TECHNOLOGY

DIVISION OF
MACHINERY
TECHNOLOGY

DIVISION OF
CHEMISTRY
TECHNOLOGY

INSTITUTE OF
MARINE
RESEARCH

DIRECTOR AND
SECRETARIAT

PHYSICAL
OCEANOGRAPHY

BIOLOGICAL
OCEANOGRAPHY

DEMERSAL FISH

PELAGIC FISH
NORTH

PELAGIC FISH
SOUTH

AQUACULTURE

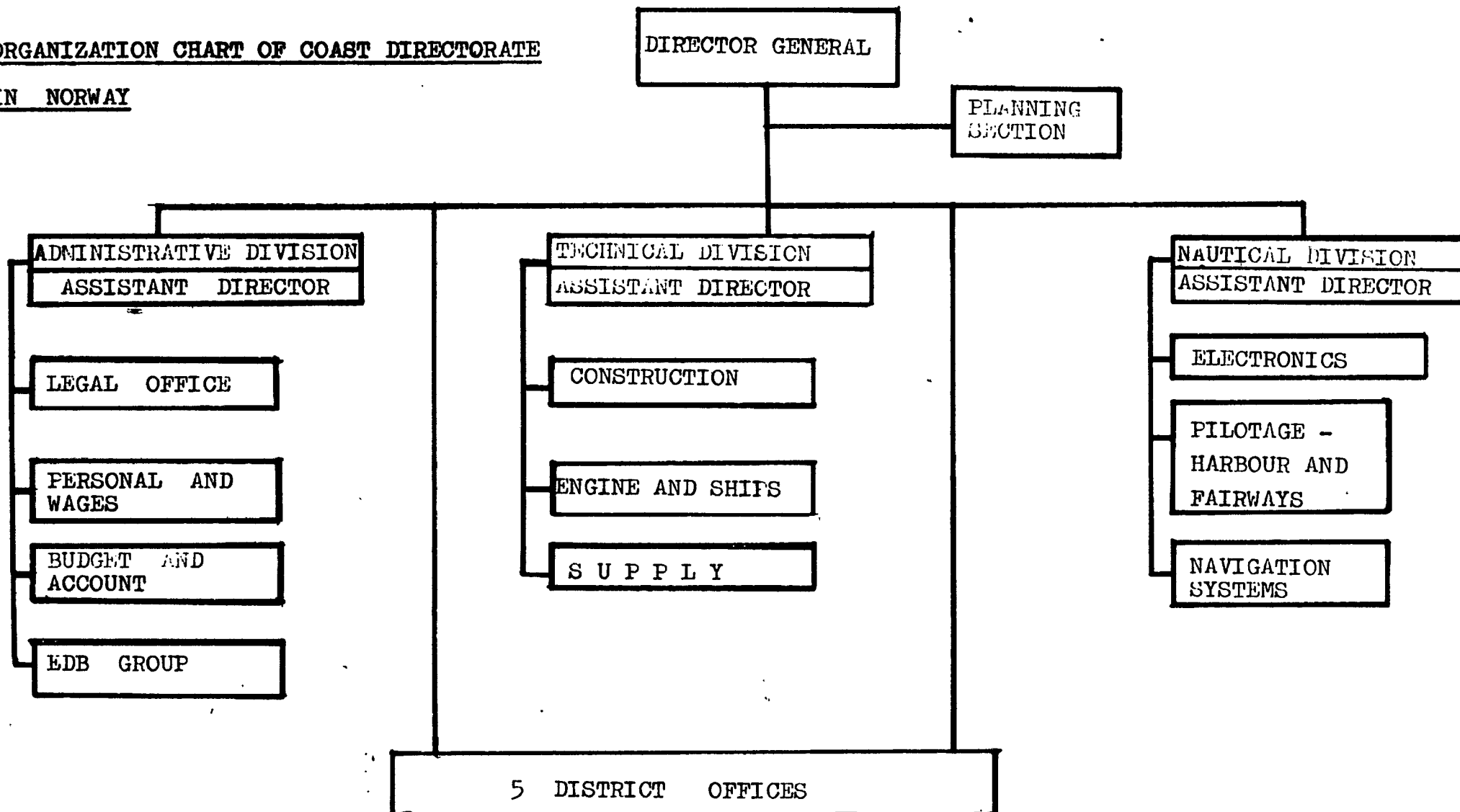
RESEARCH
VESSELS
RESEARCH
GROUPS
FIELD
STATIONS

INSTITUTE
OF NUTRITION

DIRECTOR AND
SECRETARIAT

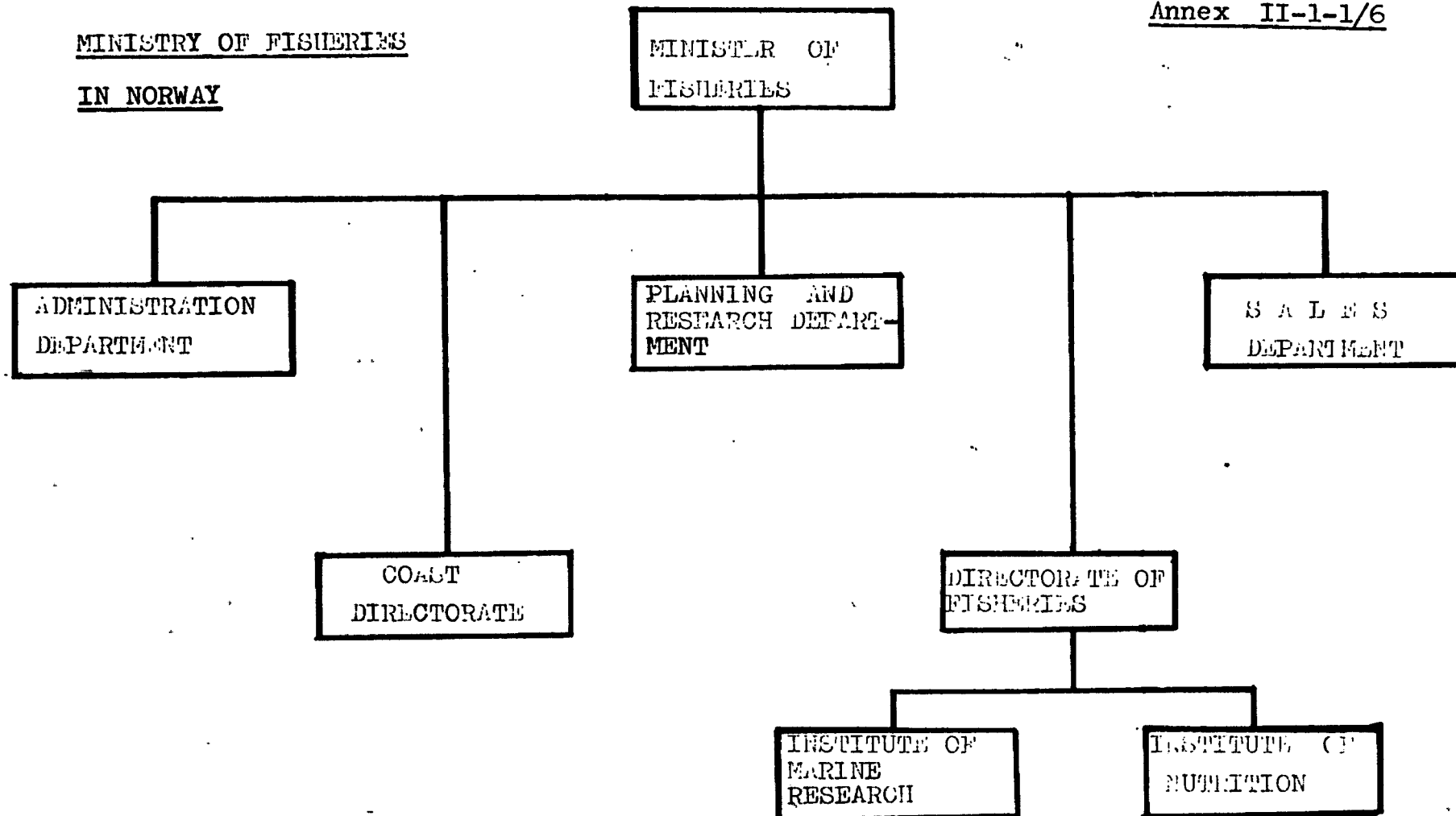
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FATS
AMINO ACIDS
PROTEINS
POLLUTED AND
POISONED FISH
BIOLOGICAL
INVESTIGATIONS
OF NUTRITION-
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FISH IN CO-
OPERATION
WITH INSTITU-
TE OF MARINE
RESEARCH
FEEDING OF
FARMED FISH

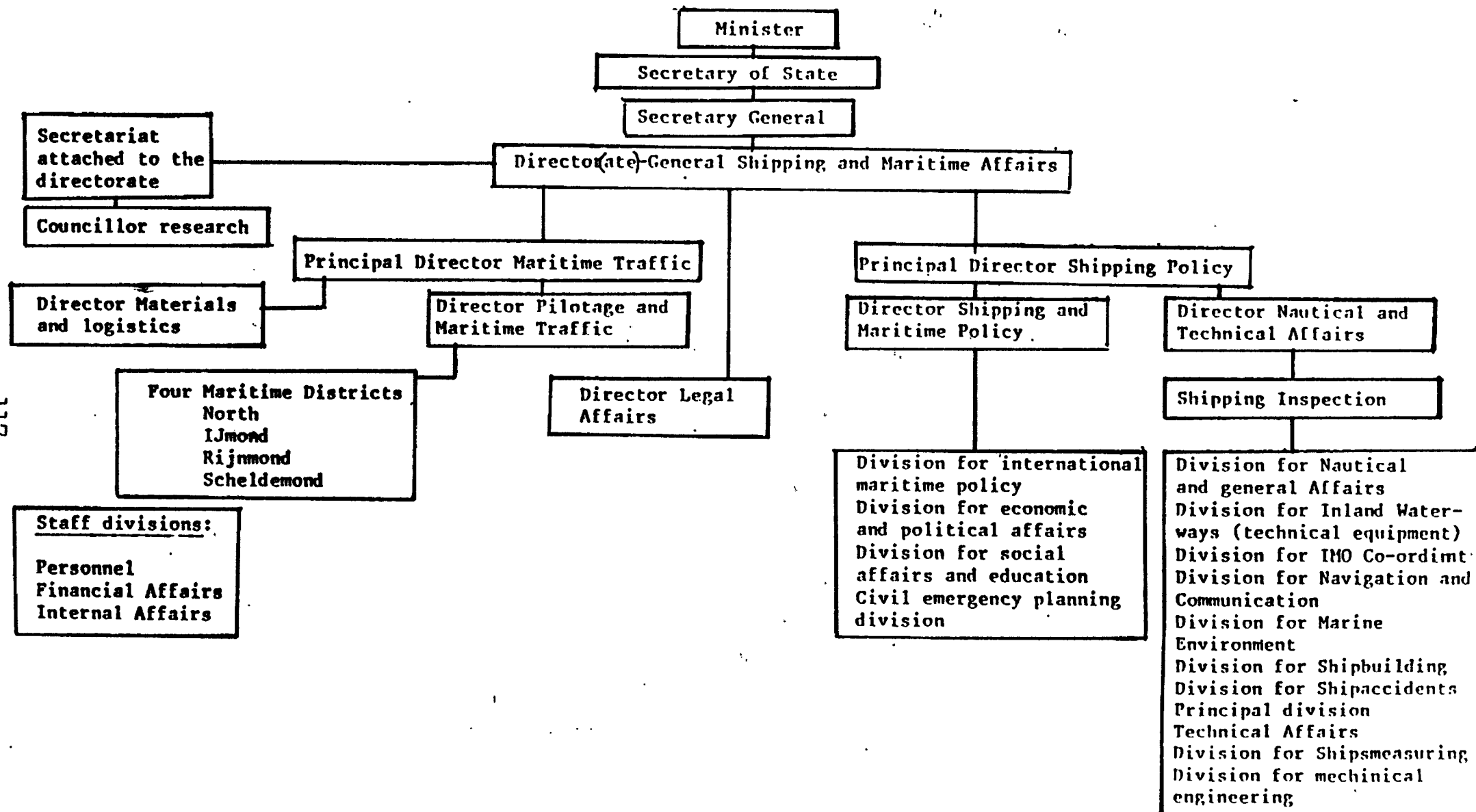
ORGANIZATION CHART OF COAST DIRECTORATE
IN NORWAY

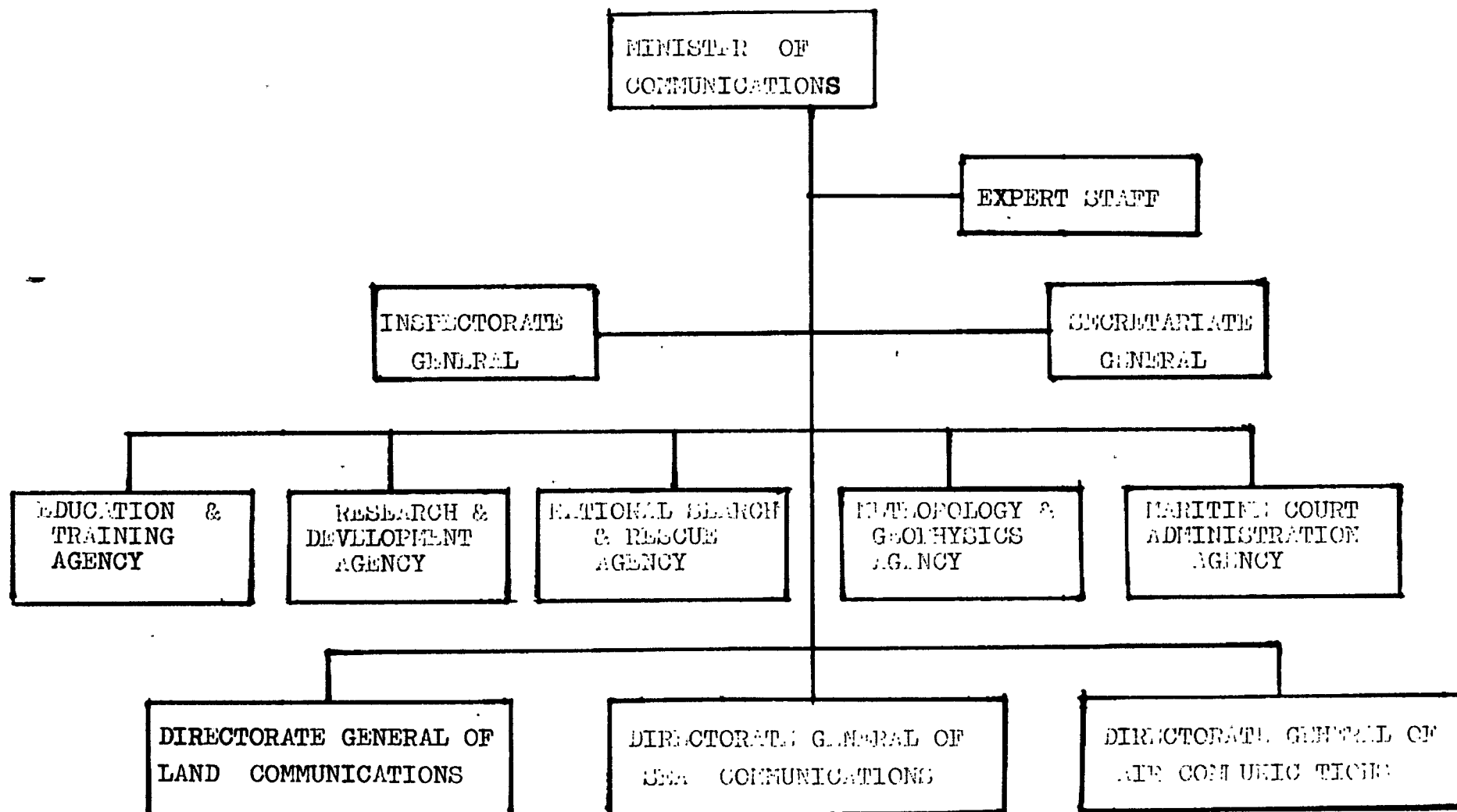


MINISTRY OF FISHERIES
IN NORWAY

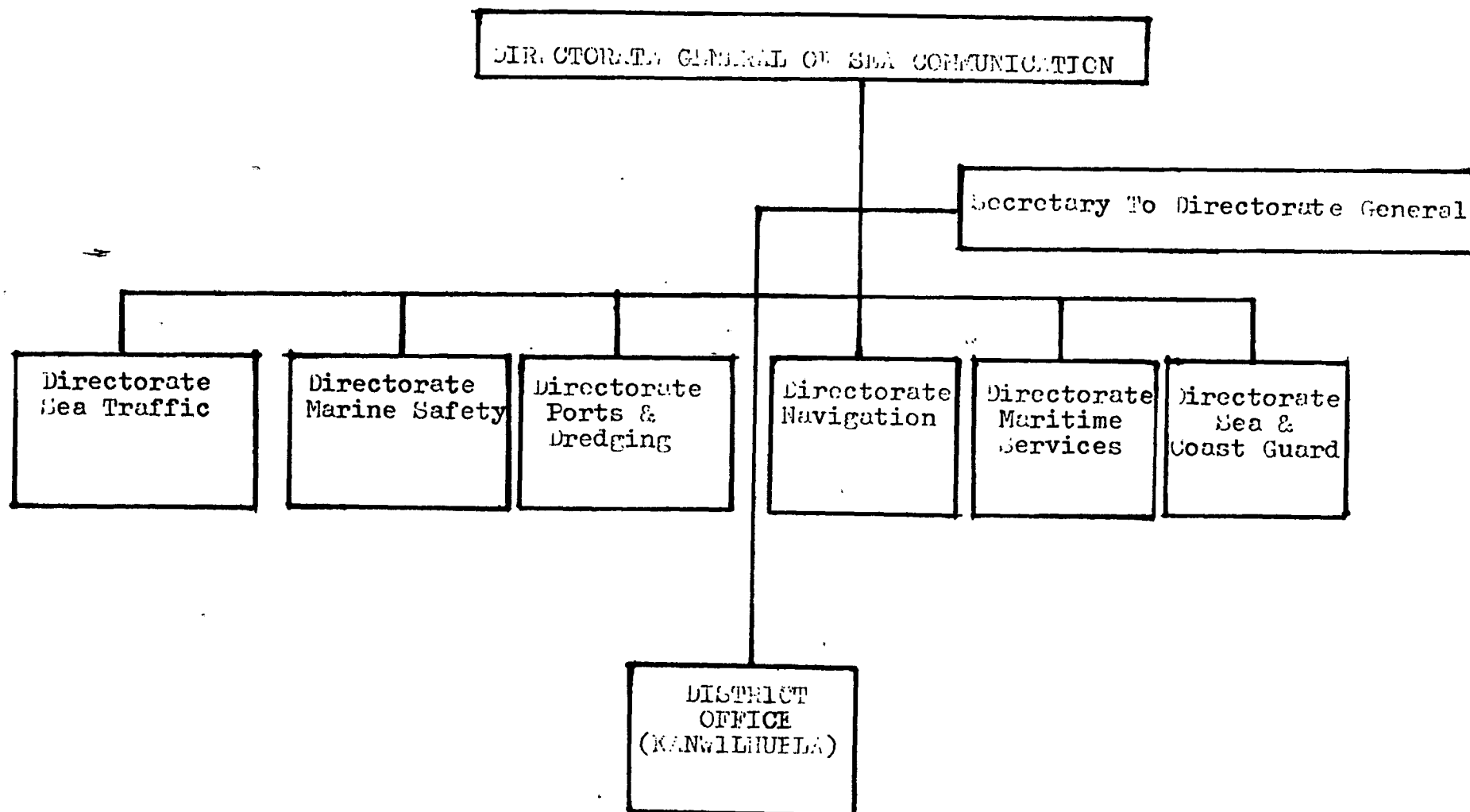
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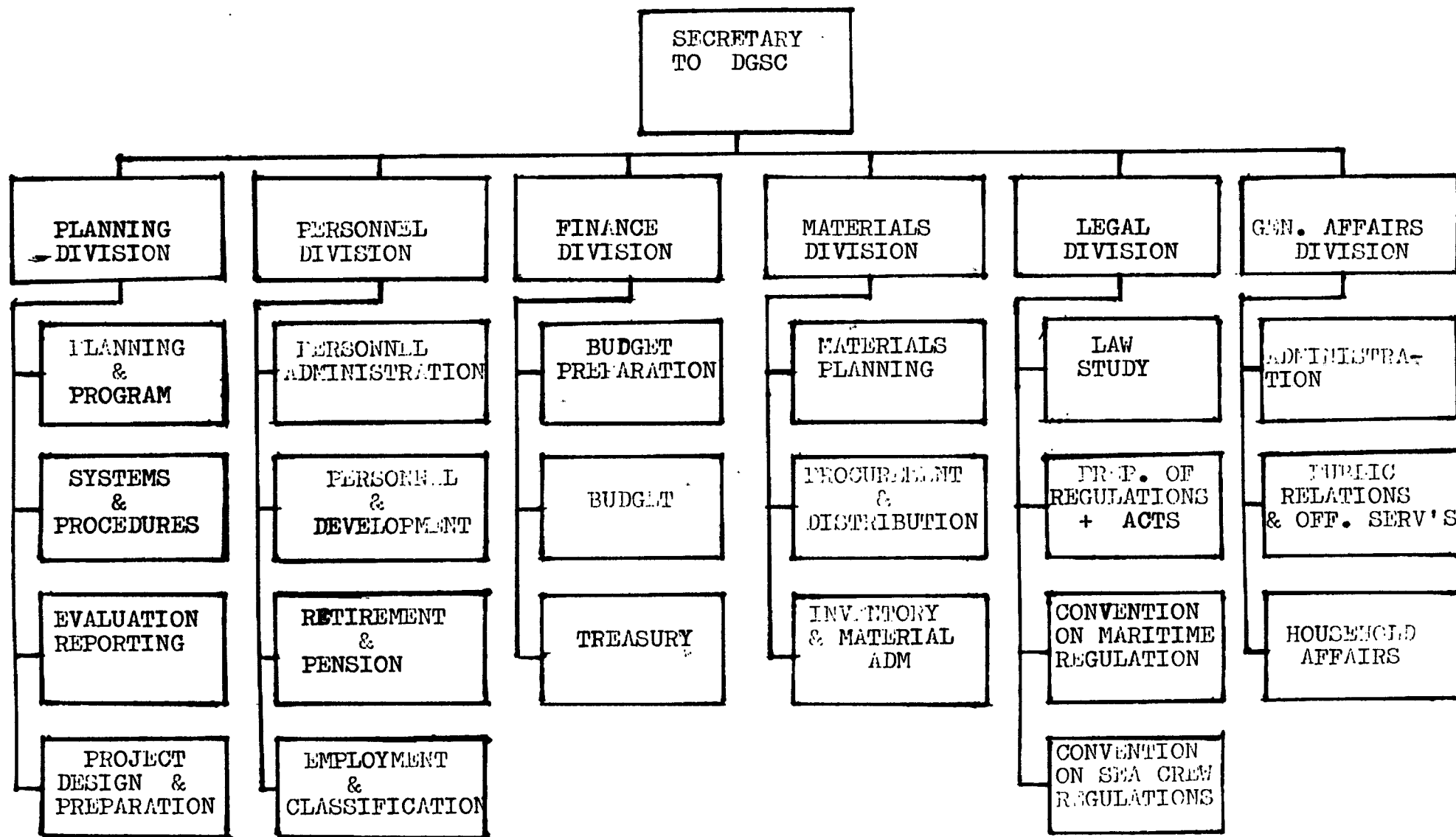


Ministry of Transport and Public Works

ORGANIZATION CHART OF THE MINISTRY OF COMMUNICATION

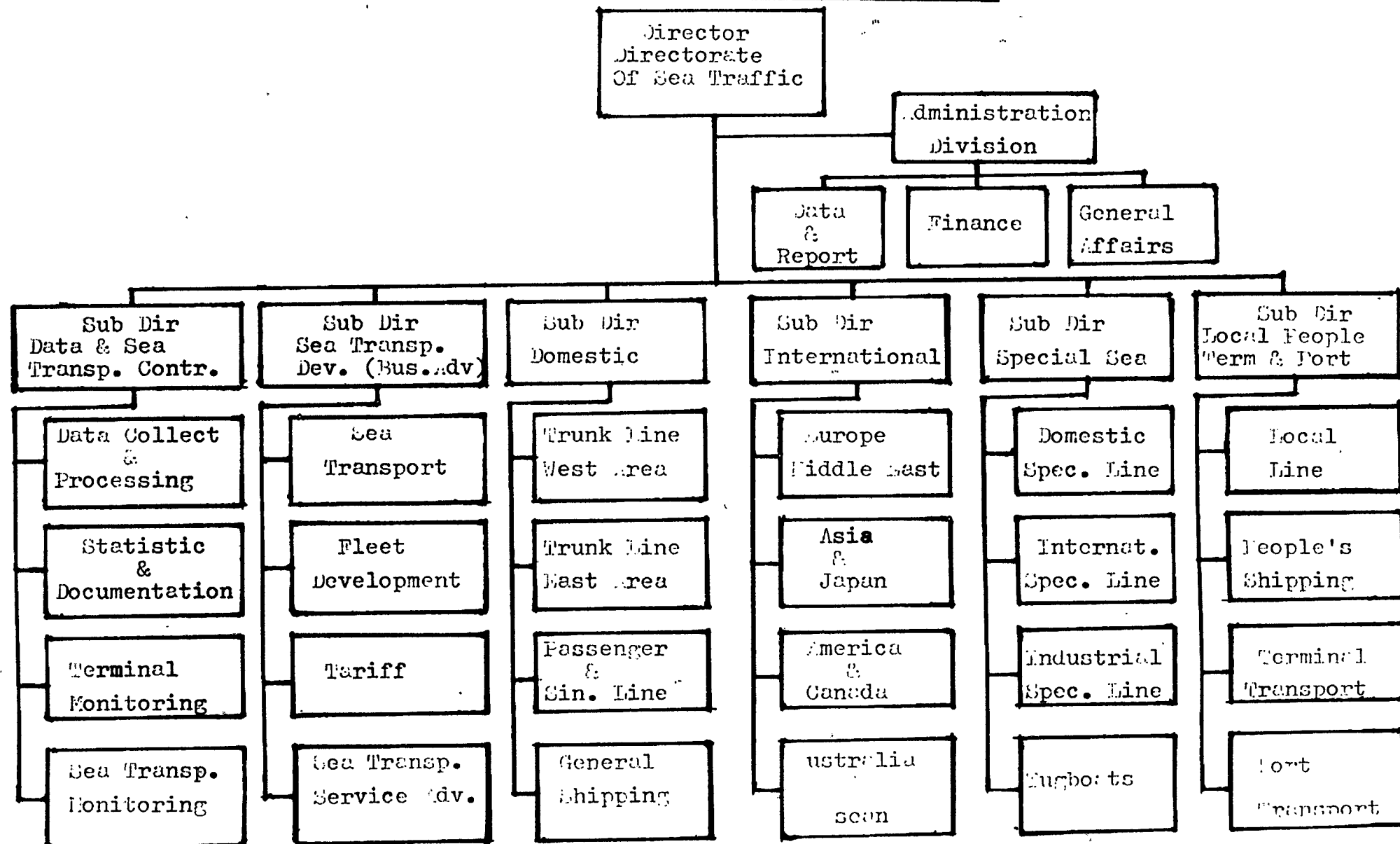
ORGANIZATION CHART OF DIRECTORATE GENERAL OF SEA COMMUNICATION



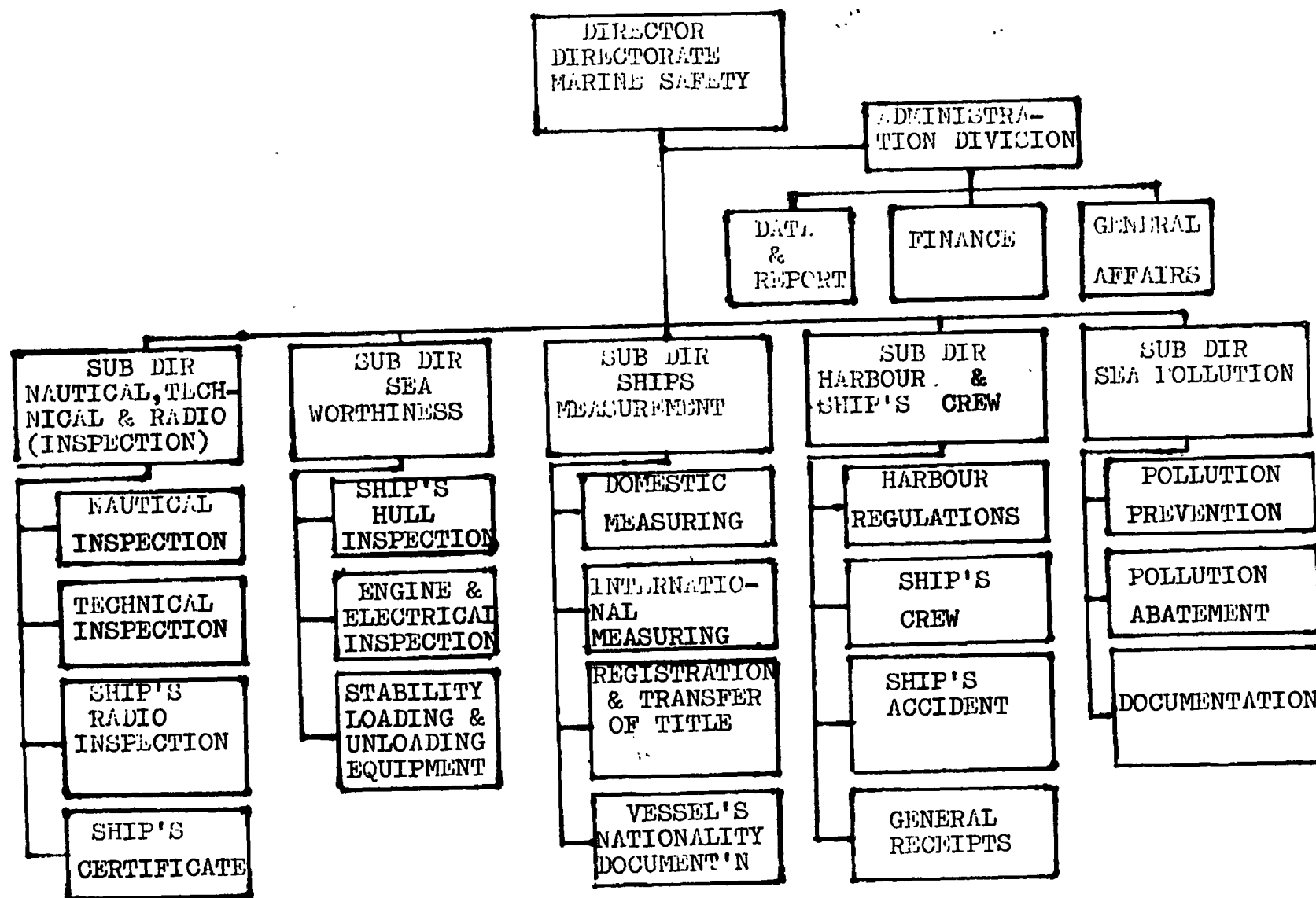
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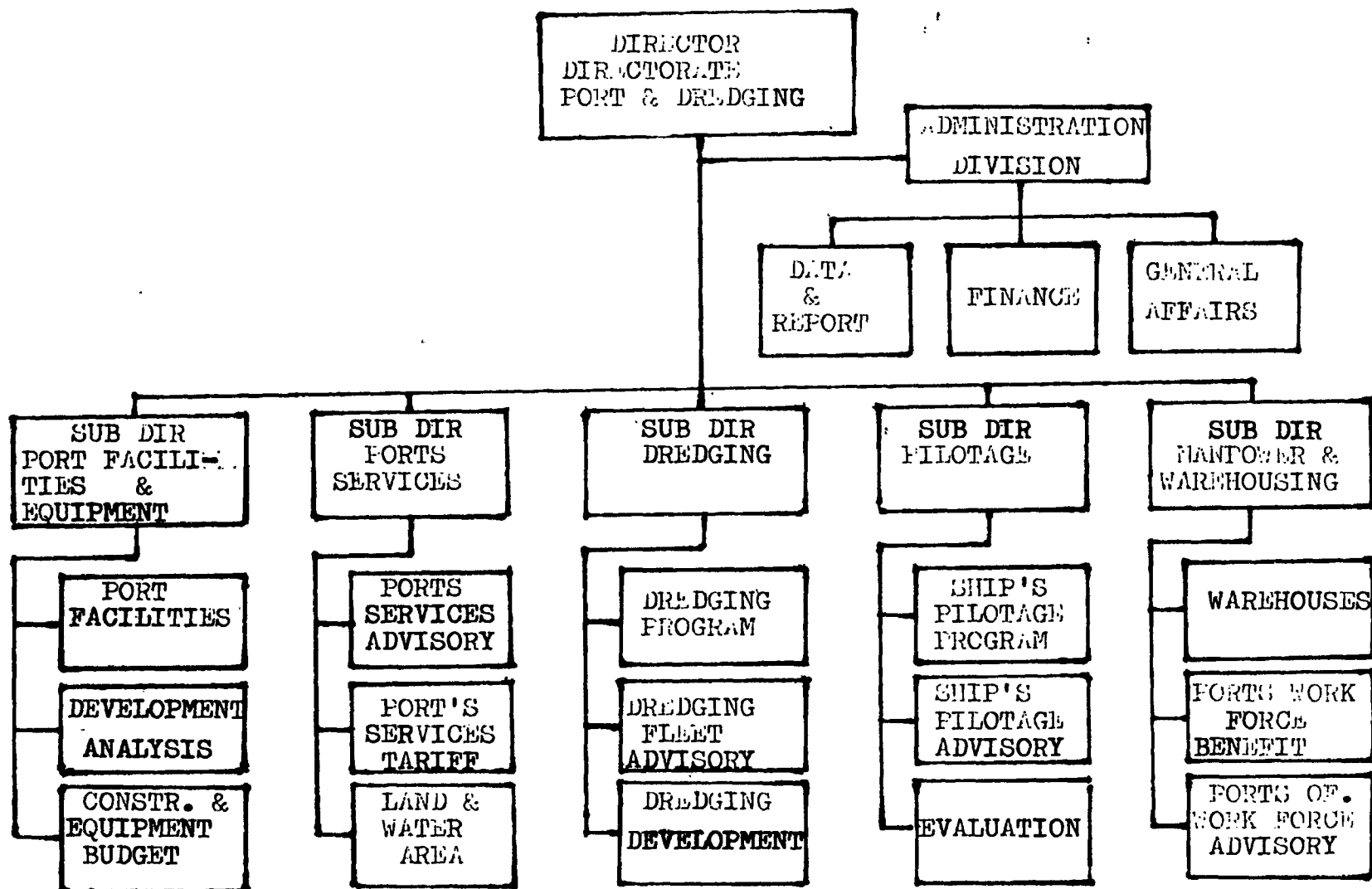
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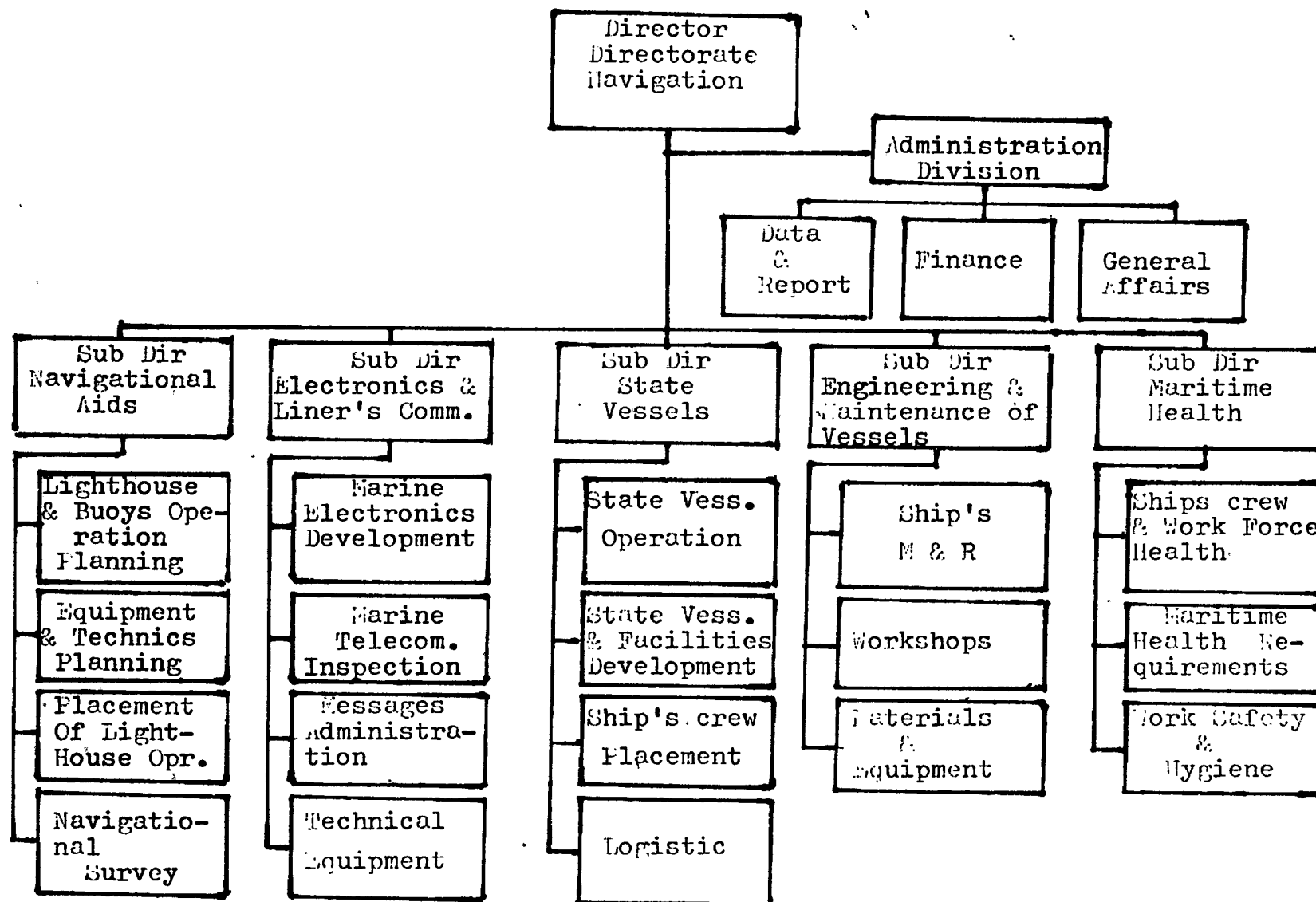
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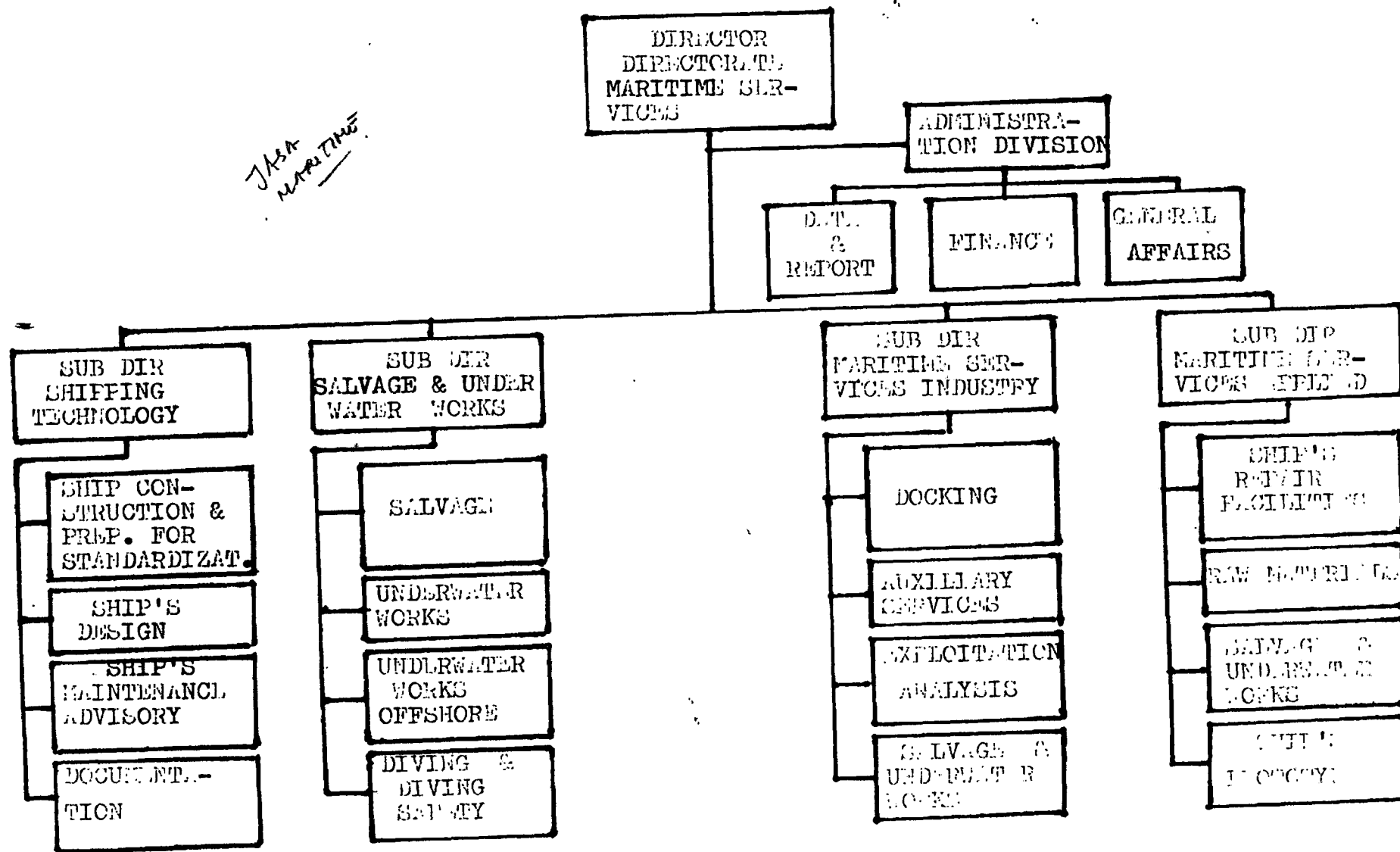
ORGANIZATION CHART OF DIRECTORATE OF MARINE SAFETY



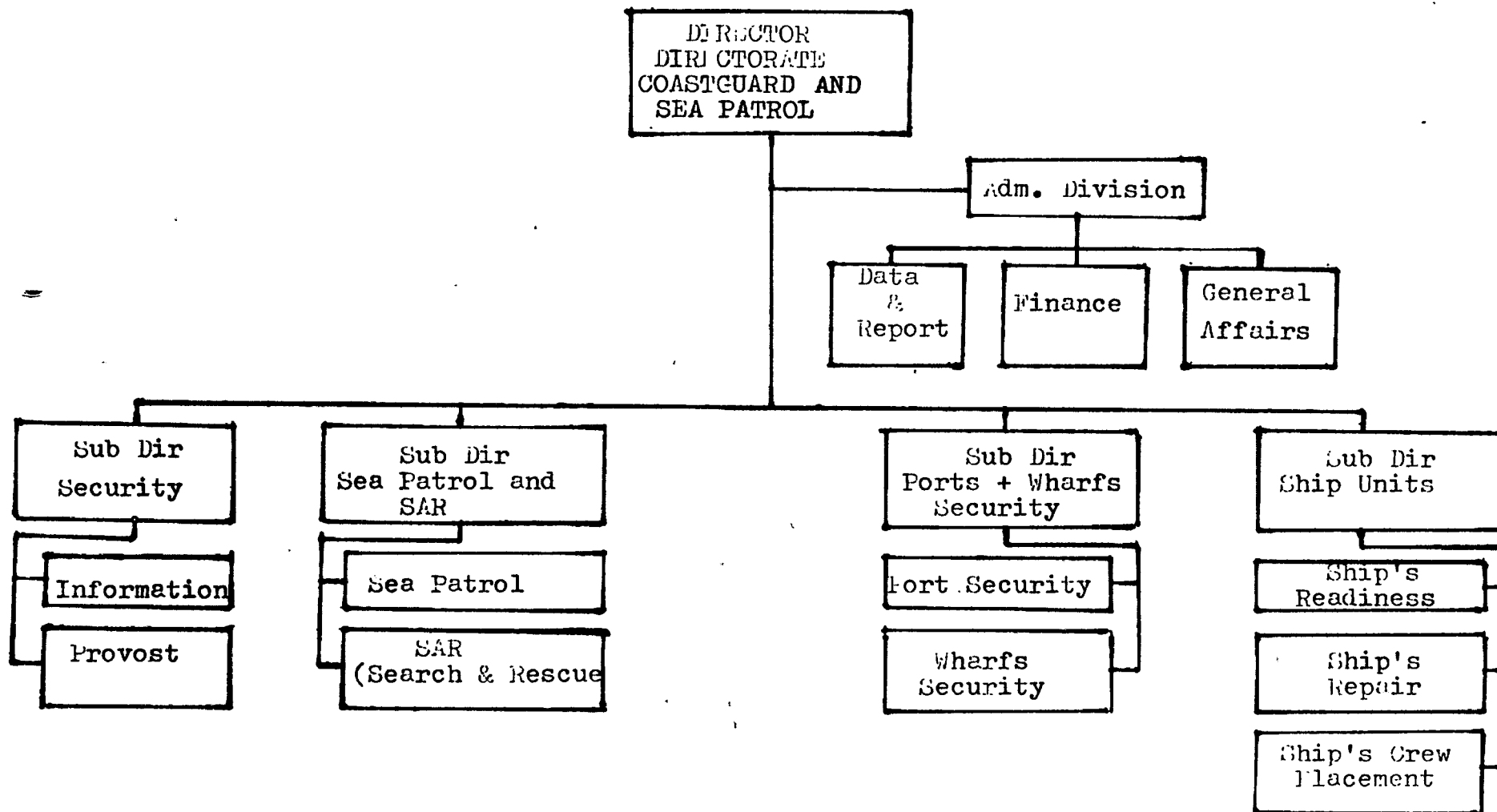
ORGANIZATION CHART OF DIRECTORATE OF PORT AND DREDGING

ORGANIZATION CHART OF DIRECTORATE OF NAVIGATION

ORGANIZATION CHART OF DIRECTORATE OF MARITIME SERVICES

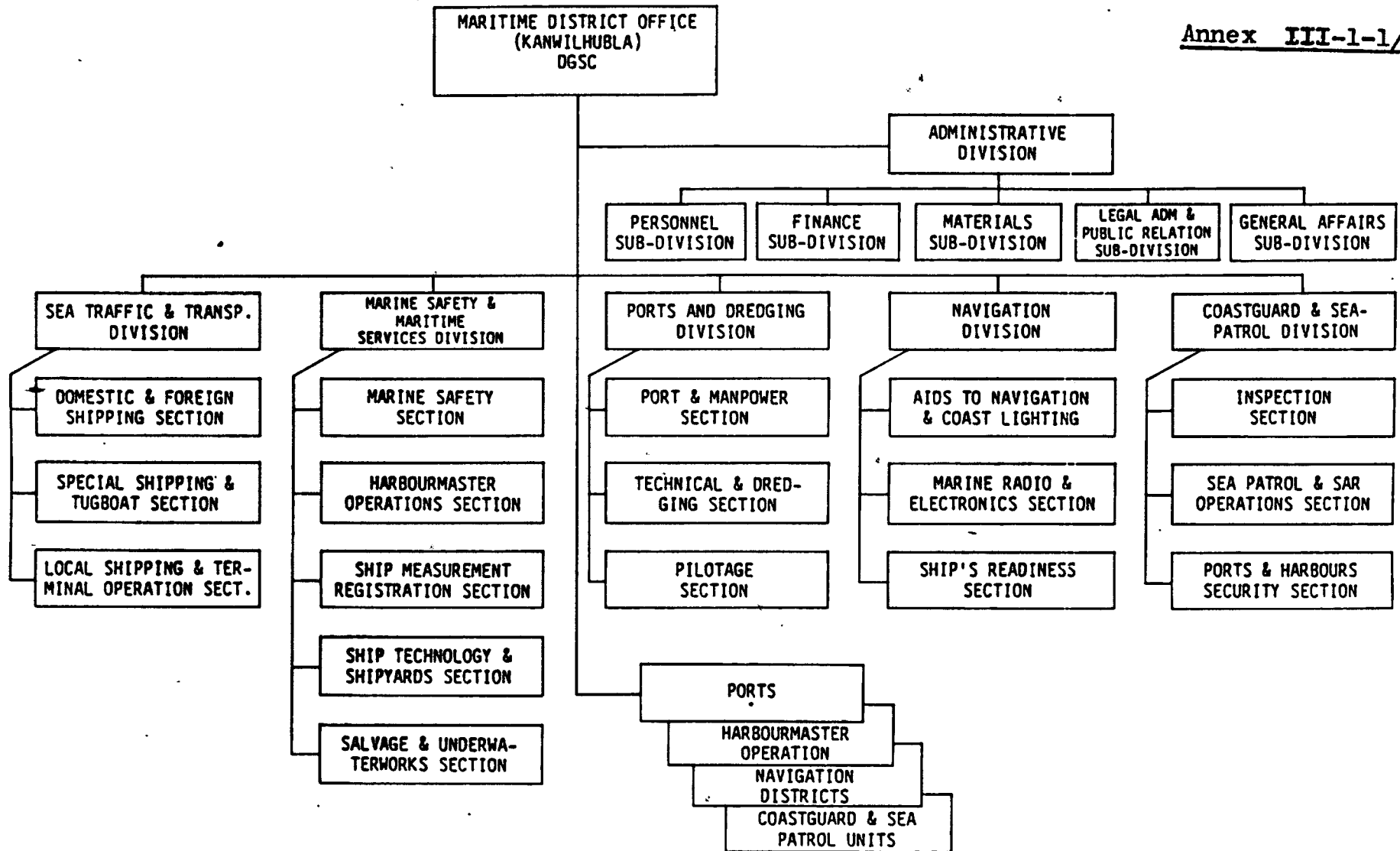


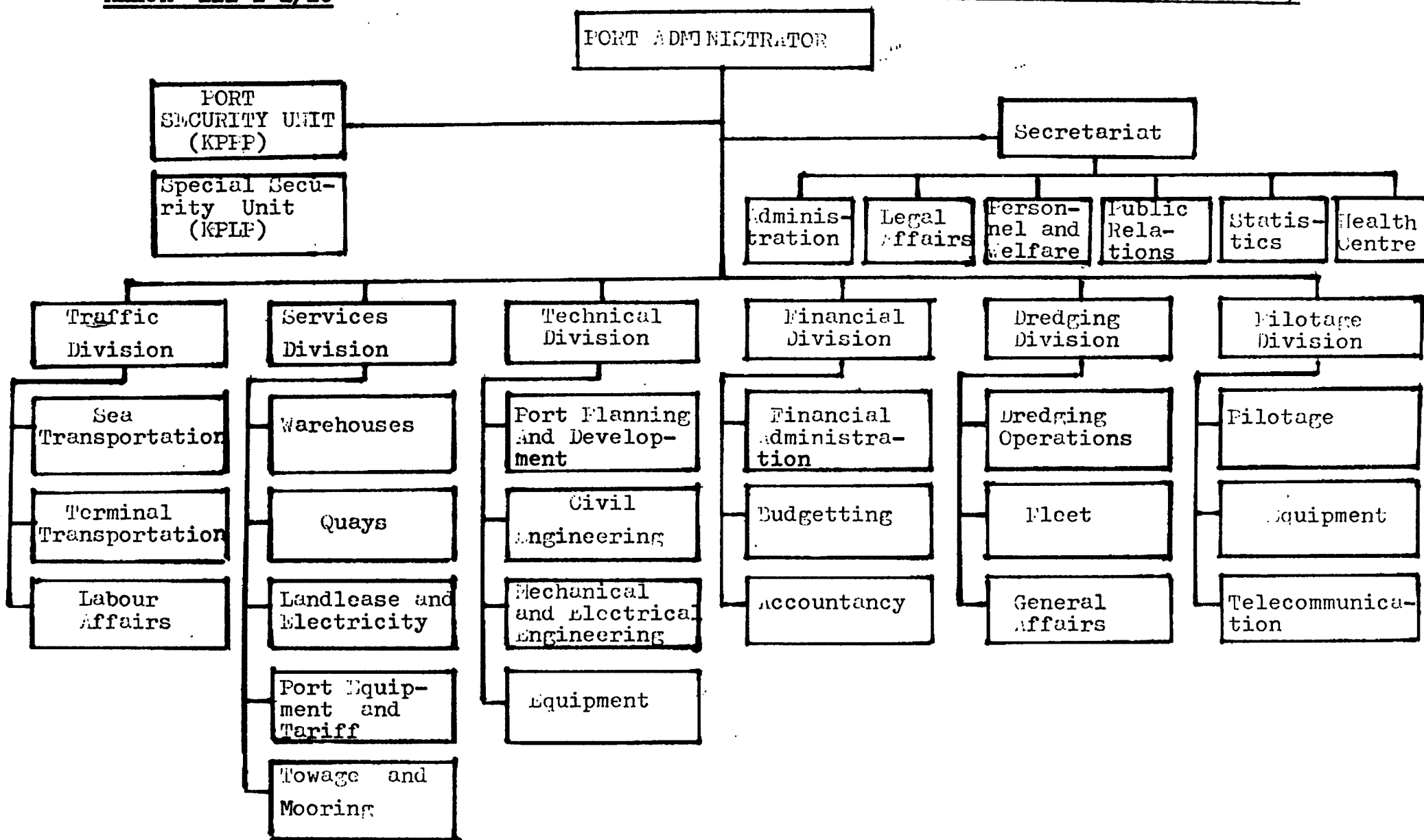
ORGANIZATION CHART OF DIRECTORATE OF COASTGUARD AND
SEA PATROL



ORGANIZATION CHART OF DGSC DISTRICT OFFICE

Annex III-1-1/9





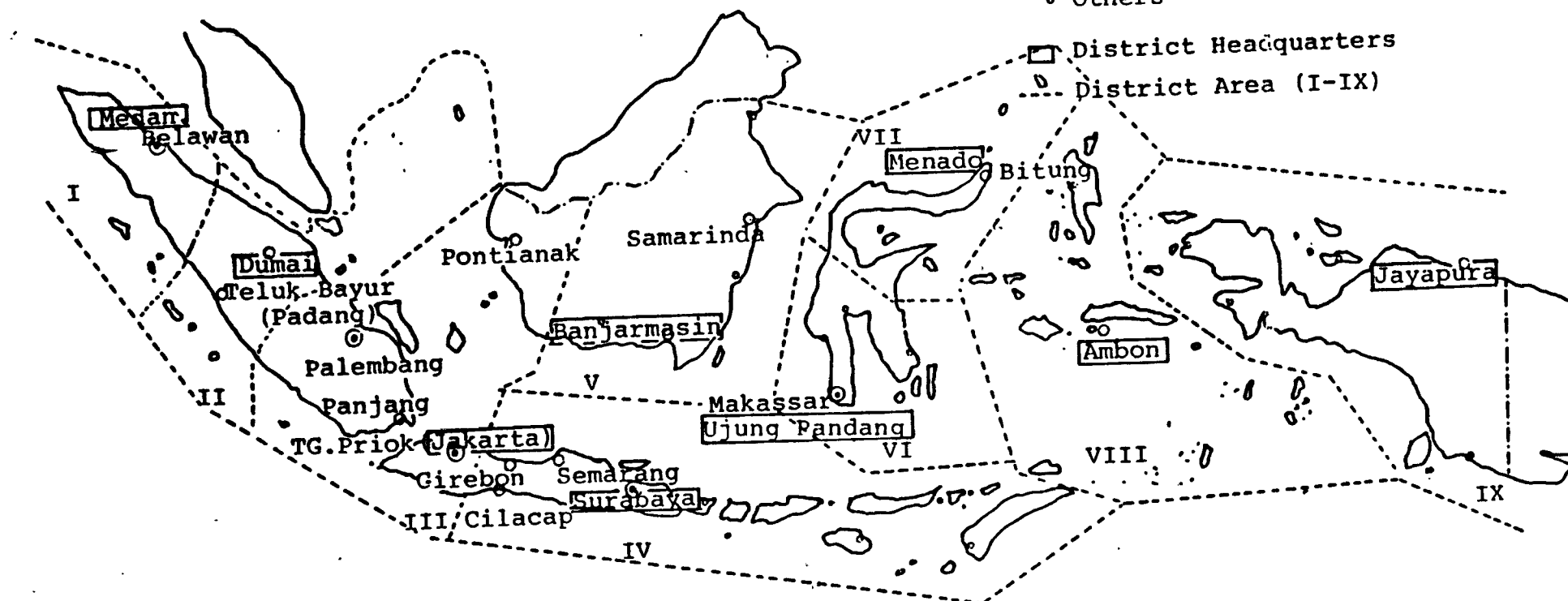
Annex III-1-1/11

Districts and Main Ports
in Indonesia

- ⊙ First Class Port
- Second Class Port
- Others

- District Headquarters
- - - District Area (I-IX)

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Annex III.1.**Gateway Ports and Allocated ILS Ports**

	GATEWAY PORTS AND ALLOCATED ILS - PORTS			
GATEWAY	BELAWAN	TG PRIOK	TG PERAK	U.PANDANG
REGIONAL/ COLLECTOR PORT	Lnok Seumaweh Dumai Batam	Palembang Panjang Padang Pontianak	Semarang Lembar Kupang Balikpapan	Bitung Kendari Ambon Sorong
TRUNK PORT I	Krueng Raya Sibolga	Bengkulu Cirebon	Cilacap Meneng Bjmasin Tarakan Samarinda	Gorontalo Pantoloan Ternate Jayapura
TRUNK PORT II	Pekanbaru Kuala Tanjung	Jambi Sintete	Kalianget Sampit Benoa	Pare-pare Toli-toli Biak Merauke

The System has the four main ports of Belawan, Tg. Priok, Surabaya and Ujung Pandang as the Gateway Ports.

CAPACITY OF NATIONAL FLEET AND VOLUME OF CARGO
TRANSPORTED DURING RETENITA III

Annex IV-1

Kind of shipping	1978			1982		
	No. of Vessels	DWT/ BRT	Cargo (Tons)	No. of Vessels	DWT/ BRT	Cargo (Tons)
Domestic trade						
- Regularliner Service (RLS)	343	348,162 D	5,277,279	397	503,371 D	7,457,610
- Local	1,363	118,925 B	1,899,484	1,049	129,476 B	2,444,677
- Traditional	2,182	96,019 B	1,012,553	3,486	180,447 B	2,155,316
- Pioneer	21	11,171 D	52,661	36	20,805 D	98,016
- Special	1,941	1,222,646 D 265,032 B 281,338 HP	38,075,048	2,501	2,267,740 D 578,875 B 379,226 HP	54,812,073
Foreign Trade						
- General	52	512,705 D	12,121,164	62	827,227 D	18,464,696
- Special	97	620,296 D	96,755,385	96	774,603 D	101,063,658

Source : STATISTIC INDONESIA 1982

Note : D = DWT

B = BRT

HP = Horse Power

J

Annex IV-2

ESTIMATE OF NATIONAL FLEET AND VOLUME OF CARGO AT
END OF REPBLITA IV.

KIND OF SHIPPING	FLEET (DWT)	CARGO (TONS)
DOMESTIC		
- Regular Liner Service (RLS)	736,000	14,750,000
- Local	217,000	4,200,000
- Traditional	245,000	3,400,000
- Pioneer	18,000	770,000
FOREIGN		
- General	1,149,000	23,700,000

Source : The Fourth Five Year Development Plan (REPBLITA IV)
Ministry of Communications 1984/85 - 1988/89.

J

Annex IV-4-1-(1)

THE TOTAL MANPOWER SITUATION IN 1985 AND IN THE FUTURE
(1989 and 1994).

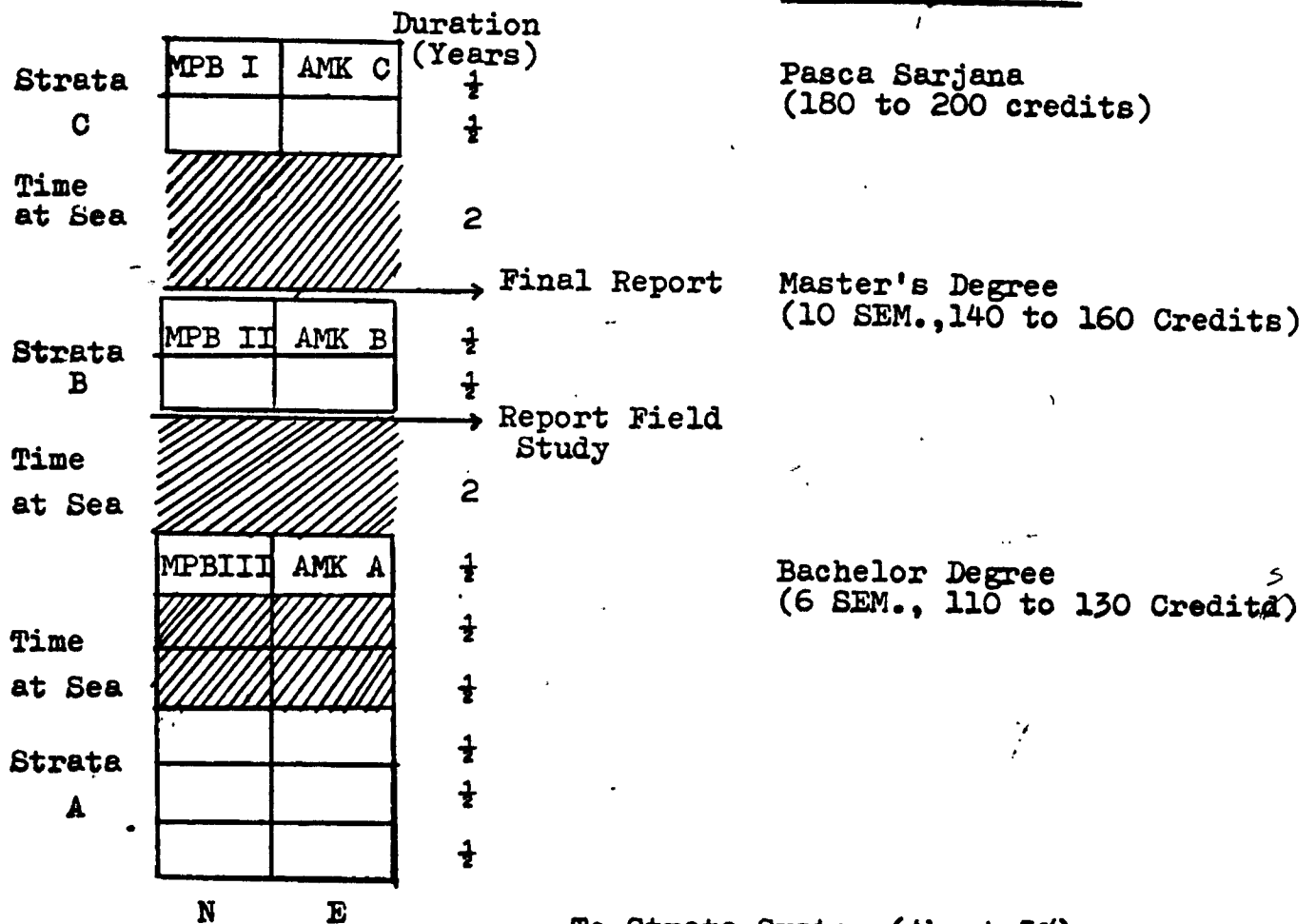
	1985	1989	1994
I. <u>Ports</u> :			
1. Terminal operators.	4,300	8,600	10,060
2. Yuka.	46,000	35,000	35,000
3. Port administration/FLRUMS.	11,300	12,350	13,700
Sub-total ports	61,600	55,950	58,760
II. <u>Shipping</u>			
1. Fleet personnel	39,100	44,900	49,575
2. Shore personnel	120,000	100,000	120,000
3. Ferahus	40,000	35,000	50,000
Sub-total shipping	199,100	179,900	199,575
III. <u>Dock and shipyards</u>	16,500	23,000	26,000
IV. <u>Technical Support</u>			
1. Shore personnel	5,742	9,401	11,504
2. Fleet personnel	16,847	24,229	28,733
Sub-total technical support	22,589	33,630	40,277
V. <u>Managerial Support</u>			
1. Perla head office	2,047	2,386	2,985
2. Kanwilhubla	1,082	1,396	1,710
Sub-total Management support	3,129	3,782	4,695
Total Maritime Sector	302,918	296,262	329,307

Annex IV-4-2-(1)

RELATION DIAGRAM

Strata System

Upgrading System



Pasca Sarjana
(180 to 200 credits)

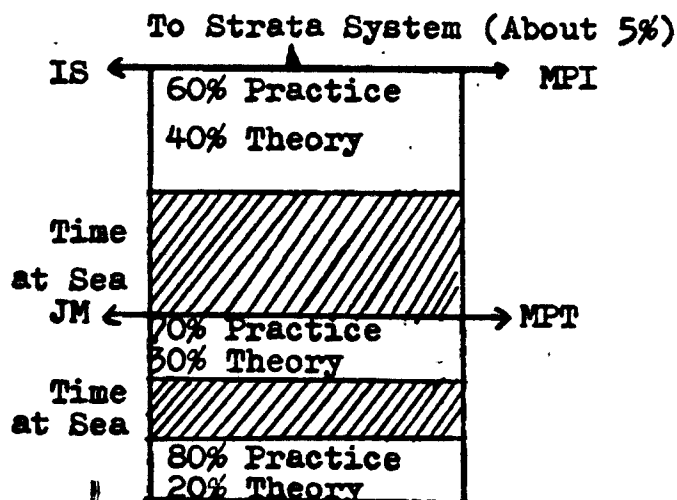
Master's Degree
(10 SEM., 140 to 160 Credits)

Bachelor Degree
(6 SEM., 110 to 130 Credits)

Admission :
SMA
STM

Legend :

N : Nautical
Officers
E : Engineerroom
Officers



Annex IV-4-2-(2)

SUMMARY OF EXISTING TRAINING COURSES/FACILITIES
AND EXPECTED DEVELOPMENT

I T E M .	KUTIP JAKARTA	PLAP JAKARTA	B P L P			PILOT SCHOOL SURABAYA	RATING SCHOOL BAROMBONG	PLTK TG.PRIOK
			SEMARANG	SURABAYA	UJ.PANDANG			
1.1. Number of teachers 1983	50	= 95	62	42	50	18	42	▲ 50
a. full timer (ft)	5	29	38	14	20	0	25	10
b. part timer (pt)	45	60	24	28	30	18	17	30
c. the ratio of ft : pt	1:9	1:2.1	1:0.6	1:2	1:1.5	-	1:0.7	1:3
1.2. number of teachers 1988 ---	52	100	85	58	70	18	56	65
a. full timer	13	50	43	29	35	1	28	33
b. part timer	39	50	42	29	35	17	28	32
c. the ratio of ft : pt	1:3	1:1	1:1	1:1	1:1	1:17	1:1	1:3
2.1. Number of personnel 1983	14	214	198	18	70	12	50	15
a. administration	4	90	122	8	25	8	13	7
b. technique	0	41	64	0	0	4	15	3
c. unskilled	10	83	12	10	45	0	22	5
2.2. Number of personnel 1988 ---	20	225	370	60	100	12	75	40
a. administration	6	90	165	20	30	8	22	15
b. technique	2	45	100	10	10	4	26	10
c. unskilled	12	90	105	30	60	0	27	15
3.1. Number of students 1983	250	758	621	167	264	21	142	1,462
3.2. Number of students 1988 ---	400	1,000	1,000	300	400	40	1,000	1,400
3.3. Training period	1 semester	3 years	3 years	3 years	3 years	1 year	1-2 semester	6-22 days
4. Number of classrooms	5	14	16	4	12	3	6	4
5. Number of laboratories	0	19	11	0	1	3	4	2
6. Site area in square meter(m ²)	3,700	68,500	80,000	10,000	23,000	7	80,000	8,000
Remarks on :								
- Educational aids	insufficient	insufficient	insufficient	insf'mt	insf'mt	sufficient	sufficient	insufficient
- Instrument/Equipment	"	"	"	"	"	"	"	"
- Training Plans on :	theoretical	fair	good	bad	good	good	good	good
- Classroom	extension	moving	extension	move	move	sufficient	sufficient	extension
- Laboratories	"	"	"	"	"	"	"	"
- Educational aids	"	"	"	"	"	"	"	"
- Instrument/Equipment	"	"	"	"	"	stimulator	"	"
- Training	practice	improvement	improvement	imp'ment	imp'ment	imp'ment	harbour Sitting	Labour

Note : * 6 (six) are free lance teachers

*** Campus will be moved to other area

▲ There are 10 free lance teachers

*** Estimated by the schools

Annex IV-6-3-(1)

KPLP (COASTGUARD) CLASSIFICATION

The classification of KPLP based on the Ministerial Decrees no.49 and no.102 (March 8, 1978 and April 11, 1983).

<u>KANWILHUBLA</u> (Maritime District Office)	<u>PORTS</u>	<u>Class</u>		
		I	II	III
I	1. Belawan	X		
	2. Sibolga			X
	3. Ulee Lheue			X
	4. Kuala Tanjung			X
<u>KANWILHUBLA</u> II	1. Dumai	X		
	2. Teluk Bayur		X	
	3. Tanjung Pinang		X	
	4. Tanjung Uban		X	
	5. Pakan Baru			X
<u>KANWILHUBLA</u> III	1. Tanjung Priok	X		
	2. Palembang	X		
	3. Panjang		X	
	4. Cirebon		X	
	5. Sunda Kelapa		X	
	6. Pontianak		X	
	7. Jambi		X	
	8. Merak			X
	9. Bengkulu			X

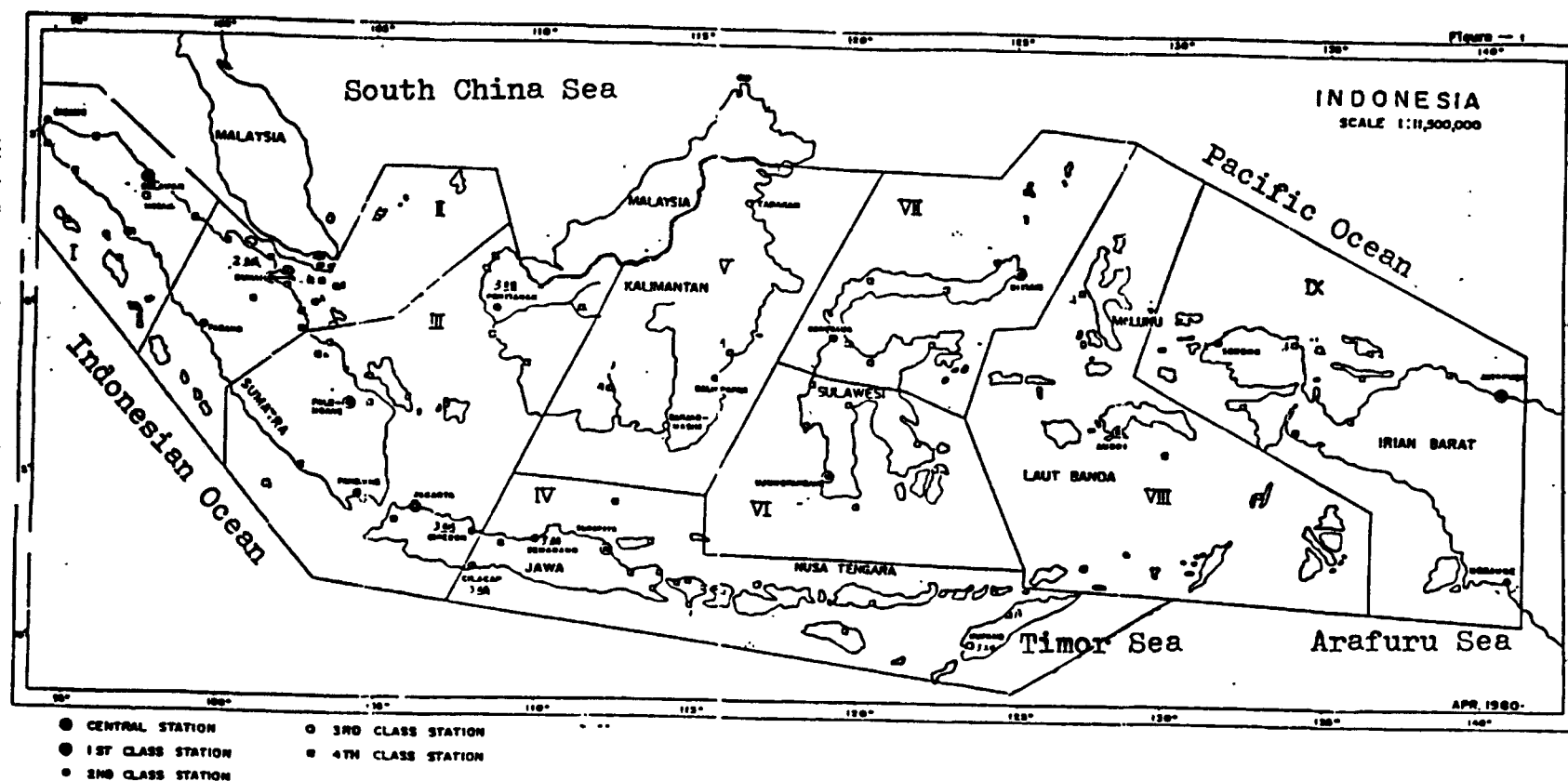
Continued Annex IV-6-3-(1)

<u>KANILHUBLA</u>	<u>PORTS</u>	<u>Class</u>		
		I	II	III
IV	1. Surabaya	X		
	2. Semarang		X	
	3. Cilacap		X	
	4. Kupang			X
	5. Ampenan			X
	6. Benoa			X
V	1. Banjarmasin	X		
	2. Samarinda		X	
	3. Balikpapan		X	
	4. Tarakan			X
	5. Sampit			X
VI	1. Makassar	X		
	2. Pare-Pare			X
	3. Kendari			X
VII	1. Manado		X	
	2. Bitung		X	
	3. Donggala			X
VIII	1. Ambon		X	
	2. Ternate			X

Continued Annex IV-6-3-(1)

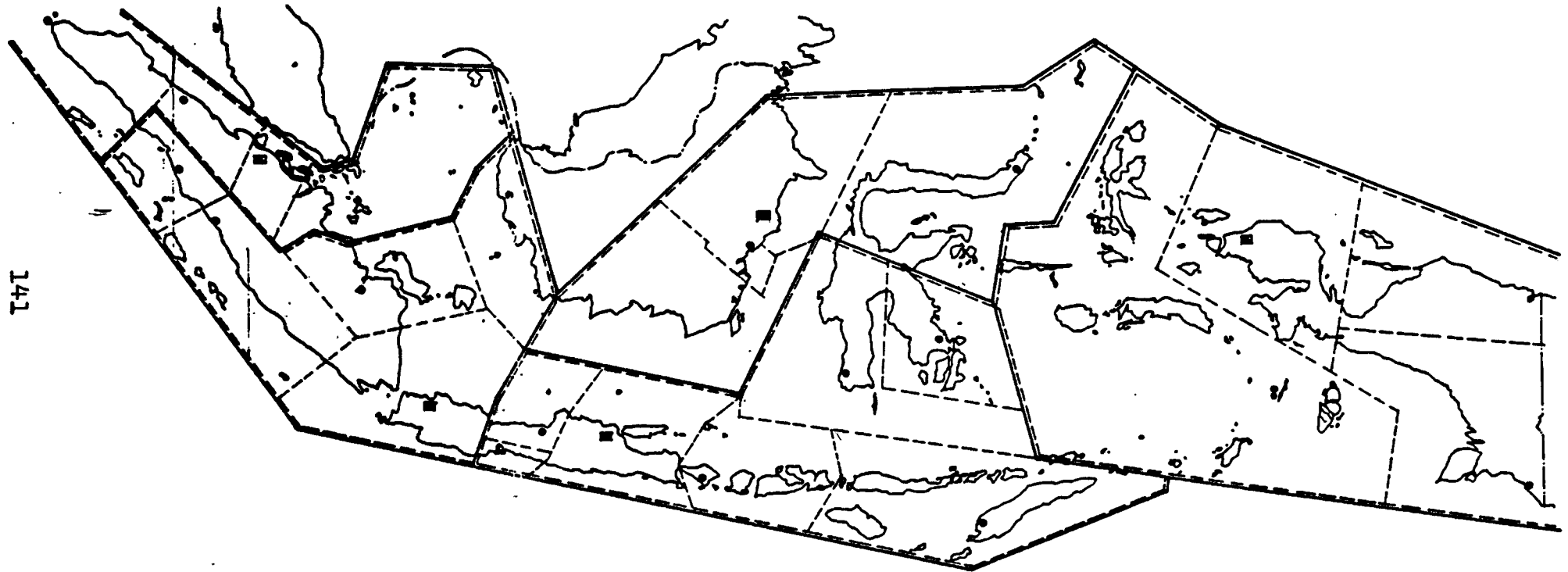
<u>KANWILHUBLA</u>	<u>PORTS</u>	<u>Class</u>		
		I	II	III
IX	1. Jayapura	X		
	2. Sorong	X		
	3. Biak			X
	4. Merauke			X
	5. Fak-Fak			X
	6. Manokwari			X
TOTAL	: 43	7	17	19.

MAP OF EXISTING COAST STATIONS



Divisions of 1st and 2nd Class
Districts of Navigation

Annex IV-7-3-(1)



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- Coverage of District of Navigation 1st Class
- - - - Coverage of District of Navigation 2nd Class
- Location of District of Navigation 1st Class
- Location of District of Navigation 2nd Class

DISTRICTS OF NAVIGATION

- MANPOWER, NAVAIDS, VESSELS -

Annex IV-7-5-(1)

As of Feb. 1984

KAWIL	PLACE	CLASS	PERSONAL					TYPE OF NAVAIDS						TYPE OF VESSEL						
			STAF T.U. (PJ)	M.S	SROP	K.N	BENG- KEL	LIGHT HOUSE	LIGHT BEACON	LIGHT BOOY	HARBOR LIGHT	SMALL BUOY	DAY MARK	BUOY TENDER	SUPPLY VESSEL	WATCH BOAT	INSPEC- TION BOAT	SURVEY VESSEL	SURVEY CRAFT	OTHERS
I	BELAWAN SABANG SIBOLGA	(II)	18	35	30	40		3	17	24	6	34				3				
		(II)	11	18	13	16		4	19	13	2	28	9			2				
		(II)	6	5	5	12	5	1	7		1		3			1				
II	DUMAI TG. PINANG TLK BAYLUR	(I)	26	43	28	110		2	19	29	7	7		1	1	3	2			
		(II)	25	86	2	57		19	25	15	13	63	113			4	2			
		(II)	14	62	10	24		9	18		6	26	16			1				
III	TG. PRIOR PALEMBANG PONTIANAK	(I)	109	107	83	266	186	26	48	34	4	44	12	2	2	4		1	4	1
		(II)	20	27	14	66	10		39	22	2	3	6			6	1			
		(II)	18	13	6	16	3		12	10	1	19	6			2				
IV	SURABAYA SEMARANG CILACAP BENOA KAPANG	(I)	67	36	64	198	41	10	22	19	7	20	25	2	2	4	1			
		(II)	15	18	12	32	15	7	11	6	2	2	18			3				
		(II)	12	9	3	8		2	13	20		23	2			1				
		(II)	21	23	4	12	8	9	18	5	2	15	24			1				
		(II)	19	49	25	32	7	10		3	15		10			2				
V	SHARINDA BAKJAMASTIN BALIKPAPAN	(I)	20	8	7	98	19	2	51	68	2	35	115	1		2	1			
		(II)	12	31	13	40	17	6	14	20	2	8	2			2	1			
		(II)	10		10	12		1	8	11		6				1				
VI	UJUNG PANDANG KENDARI	(II)	23	84	44	24		11	7	4	10	5	54			1				
		(II)	19	9		12		1	17		5		11			1				
VII	BITUNG	(II)	25	60	32	40		12	4	1	34	15	60			3				
VIII	AMBON	(II)	14	32	33	32	13	4	11		29	19	61			1	1			
IX	BORONG JAYAPURA MERAUKE	(I)	18	10	5	89	9	4	29	19	3	28	24	1	1	2	3			
		(II)	18	10	18	76	15	2	18	3	4	14				8				
		(II)	5	5	6	15	31	1	4	3	1	1	1			2				
TOTAL			545	780	467	1,327	379	146*	431*	329*	158*	415	572	7	6	50	22	1	4	1

- Notes: 1) Non-property navaids are included in the number given above.
 2) * total number of the lights with * gives 1,064, and the data as of March 1984 gives additional 28, resulting in the total number of 1,092.
 3) STAF T.U.: Administration
 M.S. (P3): Light house
 SROP: Coast Station
 K.N.: Ship
 BENKEL: Workshop

Source: DGSC Data on organization, personnel, navaids, vessels provided in a form of list and chart for 1st and 2nd classes of District of Navigation.

ORGANIZATION CHART OF LOCAL OFFICES
(DISTRICT SEA COMMUNICATIONS)

